UNIVERSITY INDUSTRIES CENTRE MANAGEMENT SYSTEM (UICMS)

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A report submitted in partial fulfilment
of the requirements for the award
of the degree of
Bachelor of Computer Science (Software Engineering)

Faculty of Computer Systems & Software Engineering
Universiti Malaysia Pahang

NOVEMBER, 2009

ABSTRACT

Management Information System (MIS) is a process or a system that is capable to computerize data. Through this system all data can be saved in a systematic way. All saving process is efficient. This processes can easily saved and data retrieval is fast and efficient. University Industries Centre Management System (UICMS) uses all the attributes mentioned above. In current process, there is no system for saving the information for UMP University Industries Centre. This system will allow all data to be computerized and saved in a systematic way.

ABSTRAK

Management Information System(MIS) adalah proses ataupun satu system yang membolehkan maklumat disimpan melalui komputer. Melalui sistem ini juga segala maklumat dapat diselaraskan dan disimpan secara sistematik. Segala proses penyimpanan data atau maklumat dapat dilakukan dengan cepat dan tidak membazir waktu. Proses untuk mendapatkan maklumat yang telah disimpan dapat dicapai dengan mudah. Jadi, melalui proses *MIS* wujud la *University Industries Centre Management System (RCMS)* yang dibangunkan untuk Unit Perusahaan Universiti UMP bagi memboleh kan penyimpanan data yang sebelum ini tiada sistem dapat menyimpan dan mencapai data dengan mudah. Kesimpulannya, semua proses penyimpanan data akan dikomputerkan agar segala maklumat dapat disimpan secara sistematik.

TABLE OF CONTENTS

LIST OF TABLE

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Background

University Industries Centre Management System (UICMS) is a Management Information System (MIS) that enables management of all research related information of a company or individual researcher. Besides, the data can be saved easily and retrieve all the data or information in sequence and keeping the data in a systematic way. On the other hand, the data can be sorted in any way required by the user.

From the previous method management data, admin keeps the data in softcopy and save by folder. When the data become so many and crowded it is hard to try to get the data or information back. It is because so many data and user must remember all the data but it is not easy to user for remembering all the data because of the people capability (short term memory).

UICM will help admin do the better achievement of data in systematic way and help to overcome of the short term memory of where to retrieve all the data back.

1.2 Problem Statements

Currently, the data or information is saving in softcopy but no system to sort the data well. It is means that the data is crowded and make user to remember the data name to find the data. If so many data with the same name the user must open one by one to see the right data needed. To make differences between any types of project user need to save many time and many place to make a backup data.

Besides that, user difficult to achieve all the data back because many folder to find and remember. Not all users can remember all the data because of their limited capability (short term memory).

Rather than that, it is wasting time to find the data needed. User must find and open one by one data to make sure get the right data. It is not systematic of saving the data.

In other hand, from the previous they use form paper to insert the data and no system to insert the data easily and sometimes wrong number of price project are inserted by user.

1.3 Objectives

There are several objectives that this project must achieve. Those are:

i. To computerize the manual process of manage information for UIC (University Industries Centre) by using database system.

ii. To make online application of technical or deliberation services.

iii. To implement software engineering technique in University Industries Centre Management System.

1.4 Scopes

In order to achieve the objectives notified earlier, the following scopes have been identified:

i. This application will include users of this application are for admin and user (client).

ii. Insert the information needed for any research

iii. View all the data or information of the research, company and budget.

iv. Update all the information

v. Delete not necessary information or data

vi. Searching the information by recent list data (sort by claim status), name of the project (sort by ascending alphabetical order), faculty involvement (name of the faculty).

vii. All documentation or processes are referring to SE Process such as SDP, SRS, and SDD.

viii. This application referred on data collected by admin.

1.5 Thesis Organization

This thesis consists of four (4) chapters. Chapter 1: Introduction- This chapter is the introductions about the project that will be develop. It consist the introduction, problem statement, objective, scope, and thesis organization. Chapter 2: Literature Review- This chapter will explain the case study of the project. There are two (2) general structure of this study, the technique that has been use and the former system that are already created. Chapter 3: Methodology- This chapter will discuss more close on the overall work flow in the development of the project. It will justify the technique along with the equipment and the software. Chapter 4: Conclusion- This chapter is the last parts of this thesis that will be summarizing the project that will be develop. There are four (4) main facts in this chapter including the summarization of the project, data, methodology, and the alternative way to improve the research on the chosen topic.

CHAPTER 2

LITERATURE REVIEW

This chapter discusses about Management Information System (MIS), explanation about how to manage the information in systematic and use the computerized to keep or save the related data for University Malaysia Pahang (UMP) Industries Centre. It also discusses about the current MIS uses and technology.

2.1 Introduction

In order to enhance the function of a University Industries Centre Management System (UICMS) for UMP, more analysis was done in MIS journal and related about MIS. This analysis covered all the aspect of developing MIS such as methodology, technologies and tools used in the development.

MIS is a system or process that provides the information necessary to manage an organization effectively. The importance of maintaining a consistent approach to the development, use, and review of MIS systems within the UMP Research Centre must be an ongoing concern of both admin and user (researcher). MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. MIS is viewed and used at many levels by management. It should be supportive of the UMP Research Centre longer term strategic goals and objectives. To the other extreme it is also those everyday financial accounting systems that are used to ensure basic control is maintained over financial recordkeeping activities.

2.2 Common methodology for MIS development

Methodology for MIS development is a process that must be knew to develop a stable MIS. The examples of MIS are based on website and journal about MIS. In the website about the MIS there are several techniques can be use in MIS development to make the MIS can easily develop. The techniques are including SDLC, Prototyping, Application Packages, Outsourcing and Dynamic Approach [1]. The example is like table below:

Table 2.1 Use of Development Technique

	SDLC	Protoyping	Applic. Packages	Outsourcing	Dynamic Appr., End user comp.
Personal MIS	Rarely	Often	Often	Occasional	Often
Group MIS	Often to sometimes	Sometimes	Occasional	Occasional	Rarely
Organiz. MIS	Yes	Sometimes to define specs.	Occasional	Occasional	Never

2.3 Study of Existing System

Several studies have been conducted to know the scenario and techniques applied in the existing.

2.3.1 Department of Water Resources System

Mission

The Office of Water Use Efficiency and Transfers provides support for the stewardship of California's water resources by promoting and facilitating the energy efficient use of water (including water transfers) and facilitates in the CALFED solution area. This office is responsible for water use efficiency planning and coordination.[2]

Services

- Provides expertise to local agencies and individuals regarding agricultural and urban water and energy conservation, reclamation and reuse of water, land and water use, and drainage management.

- Manages the California Irrigation Management Information System (CIMIS) by collecting weather data from over 120 stations and disseminating calculated reference evapotranspiration (ETo) to assist landscape and crop managers irrigate efficiently.

- Carries out data analysis, demonstration projects, and research to achieve energy and water use efficiency.[2]

Features of the system

- Provide all the search button to easy find information needed

- The subject menu are in the right side and orderly

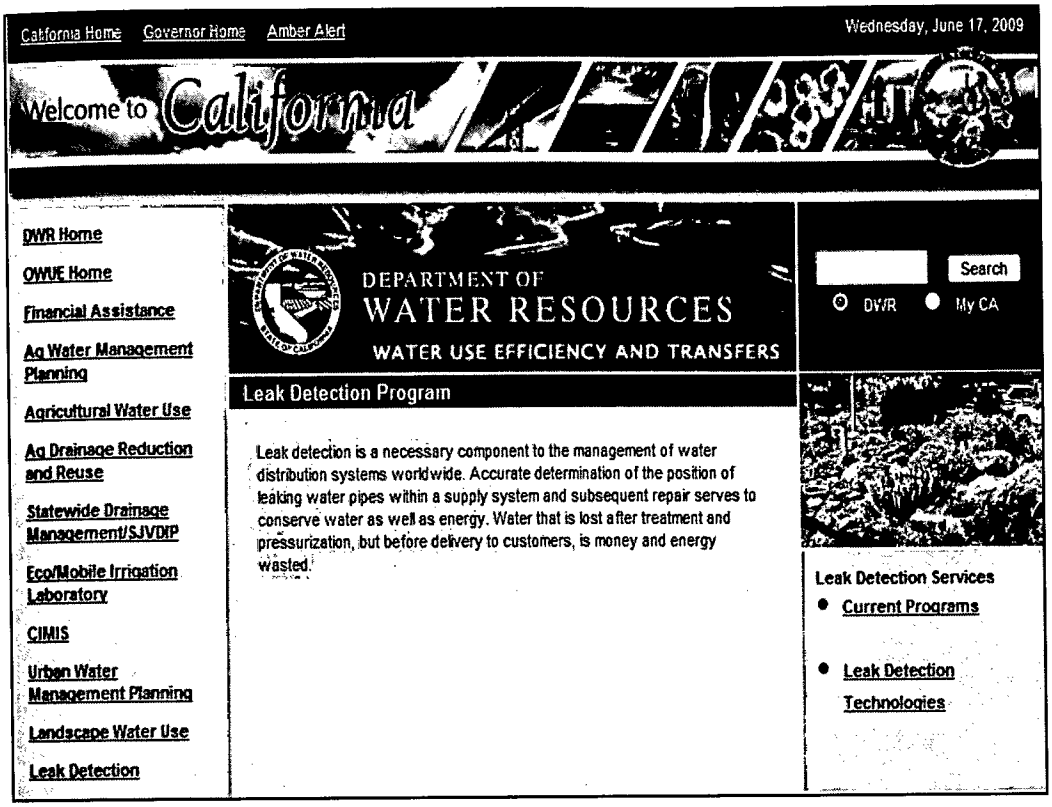

Figure2.1: Page of Department of Water Resources System

2.3.2 Internal Species Information System

These systems are providing information about animal species and provide members application to join the community.[3]

Features of the system

- Provide interactive menu button
- Provide link to the application form for member application
- Provide view and search information by alphabetical

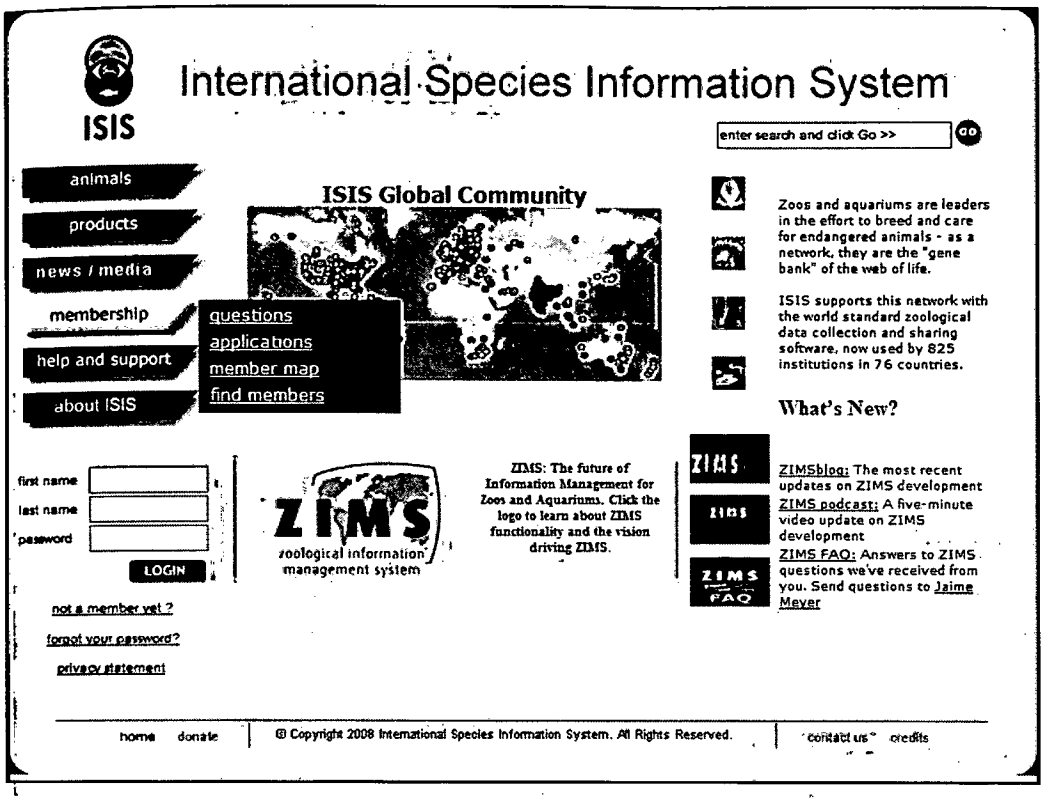

Figure 2.2: Homepage of the International Species Information System

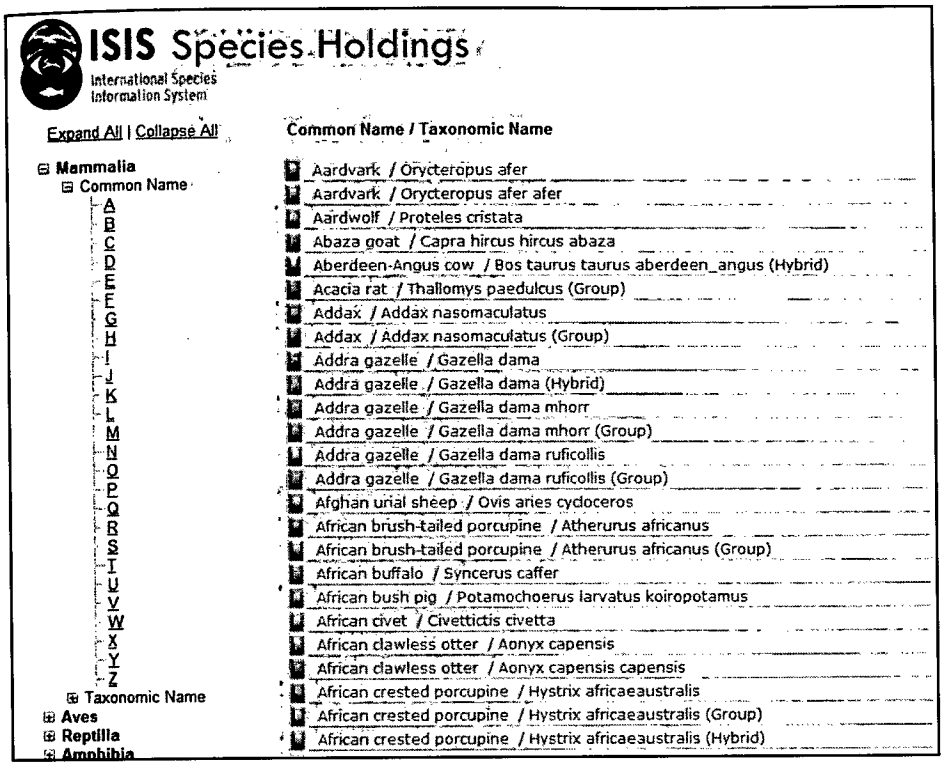

Figure 2.3: View information of animal by alphabetical order

2.4 Techniques and Algorithm Approach

Based on the case study, the existing system of Management Information System does not implement any type of expert systems. In this UIC Management System there were have enhancement to the current system.

2.5 Recommender System

Recommender system advice any application related with the budget can calculated automatically and user of the system just can insert the information and get the detail of all the information and can do the statistic by view the chart.

2.6 Software Approach

This section describe in detail about tools software that used in this system development.

2.6.1 PHP: Hypertext Preprocessor (PHP)

PHP is a general-purpose scripting language that is especially suited for web development. PHP generally runs on a web server, taking PHP code as its input and creating web pages as output. It can also be used for command-line scripting and client-side GUI applications and can be used in standalone graphical applications. PHP can be deployed on most web servers, many operating systems and platforms, and can be used with many relational database management systems. It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use

The best things about PHP are that it is simple for a newcomer, but offers many advanced features for a professional programmer. PHP is a particularly useful programming language because it allows for advanced programming and is easy to integrate with web pages. Another plus of PHP is that the language interfaces very well with MySQL, a popular type of online database. PHP is an Open Source Code. The actual code that is PHP is available to the public for free. [4]

2.6.2 MySQL

MySQL is the world's most popular open source database software, with over 100 million copies of its software downloaded or distributed throughout its history. With its superior speed, reliability, and ease of use, MySQL has become the preferred choice for Web, Web 2.0, SaaS, ISV, Telecom companies and forward-thinking corporate IT Managers because it eliminates the major problems associated with downtime, maintenance and administration for modern, online applications. MySQL is a key part of LAMP (Linux, Apache, MySQL, PHP / Perl / Python), the fast-growing open source enterprise software stack. More and more companies are using LAMP as an alternative to expensive proprietary software stacks because of its lower cost and freedom from platform lock-in.

MySQL stores data in separate tables rather than putting all the data in one big storeroom. This adds speed and flexibility. The SQL part of MySQL stands for Structured Query Language. SQL is the most common standardized language used to access databases and is defined by the ANSI/ISO SQL Standard. [5]

2.6.3 Microsoft Office Project

Microsoft Project (or MSP) is a project management software program developed and sold by Microsoft which is designed to assist project managers in developing plans, assigning resources to tasks, tracking progress, managing budgets and analyzing workloads.

The application creates critical path schedules, although critical chain and event chain methodology third-party add-ons are available. Schedules can be resource leveled, and chains are visualized in a Gantt chart. Additionally, Project can recognize different classes of users. These different classes of users can have differing access levels to projects, views, and other data. Custom objects such as

calendars, views, tables, filters and fields are stored in an enterprise global which is shared by all users. [6]

2.6.4 Rational Rose

Rational Rose is a tool set produced and marketed by Rational Software Corporation (now owned by IBM). Rose is an operational tool set that uses the Unified Modeling Language (UML) as its means for facilitating the capture of domain semantics and architecture/design intent. UML has a number of different notations, allowing the specification of the artifacts of design from many different perspectives and for different objectives during the computer engineering life cycle. Most of these notations are directly supported through the Rose tool set. [8]

2.6.5 Adobe Photoshop CS3

Adobe Photoshop, or simply Photoshop, is a graphics editing program (also known as a DPP, Desktop Publishing Program) developed and published by Adobe Systems. It is the current and primary market leader for commercial bitmap and image manipulation software, and is the flagship product of Adobe Systems. It has been described as "an industry standard for graphics professionals" and was one of the early "killer applications" on the PC. It use for banner editing for UICMS banner interface. [7]

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will describe about the software process, methodology chosen to develop Research Centre Management System. Software model that had been chosen to develop this system is Rapid Application Development (RAD).

3.2 Software Process

RAD is an iterative process that relies heavily on user involvement throughout the development process. This involvement begins during a true initial design phase. In RAD, brain storming at the beginning of the process to determine requirements and producing, reviewing, and refining a fundamental prototype during the design phase. Once project requirements are defined, the developers model the structure and interaction of the objects required to implement the requirements.