THE CAREER AND STAFF TRANING DATABASE SYSTEM

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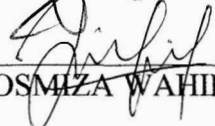(TANDATANGAN PENYELIA)

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DECLARATION

I hereby declare that this project report entitled

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is written by me and is my own effort and that no part has been plagiarized

without citations.

STUDENT   : _____   Date : 24/11/2006

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(PUAN ROSMIZA WAHIDA BT ABDULLAH)

DEDICATION

To my beloved parents and my friend....thank you

ACKNOWLEDGEMENTS

Allhamdullillah, first and foremost I would like to thank god for his gift in giving me health and time to finish this *PSM*. *PSM* allows to me learn how to manage and analyze the current system and modify it to be a more complex system. I also learn how to design an attractive and user friendly interface to make it look neat and well arranged.

My gratitude also goes to all my friends who has always been there to support me, to Jempol Community College Training Staff Coordinator Department and special thanks to my *PSM* supervisor is Puan Rosmiza Wahida Binti Abdullah because she helps and guides me during completing this project.

ABSTRACT

The proposed system for *Projek Sarjana Muda (PSM)* is known as Career and Staff Traning Database System for Jempol Community College at Taman Industri Mahsan, Bahau, Negeri Sembilan. This system is a client-server system that will help Staff Coordinator Department in Jempol Community College to manage the courses that have been attended by staff to apply courses that are wanted according to staff's career. This system is developed in purposa to avoid data redundacy that accurs in the current system that is paper-based in the manual system. In developing this system, methodology chosen is Object Oriented Analysis Design (OOAD) and object concept is Unified Modeling language (UML). It is hoped that this system will help the targeted user and will give benefits to Jempol Community College.

ABSTRAK

Sistem yang dirancang untuk Projek Sarjana Muda (PSM) ini dikenali sebagai Sistem Pangkalan Data Kerjaya dan Latihan Kursus untuk Kolej Komuniti Jempol di Taman Industri Mahsan, Bahau, Negeri Sembilan. Sistem ini adalah sistem stand-alone yang akan membantu penyelaras untuk Jabatan Latihan di Kolej Komuniti Jempol untuk menguruskan kursus-kursus yang telah dihadiri dan memohon kursus yang dikehendaki mengikut kerjaya seseorang pekerja. Sistem ini dibangunkan juga adalah bertujuan mengelakkan pertindihan data berlaku di sistem yang lama masih menggunakan kertas. Dalam membangunkan sistem ini, metodologi yang telah dipilih ialah *Object Oriented Analysis Design (OOAD)* serta konsep objek adalah *Unified Modeling Language (UML)*. Diharapkan dengan wujudnya sistem ini akan menolong pihak berkenaan dan akan dapat memberi manfaat yang sewajarnya kepada pihak Kolej Komuniti Jempol.

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CHAPTER I

INTRODUCTION

1.1 Project Background

The proposed system is The Career and Staff Training Database System for Jempol Community College. The user of the system is going to be the Jempol Community College in *Negeri Sembilan*. Coordinator Staff Training Department and Leader of *Jabatan Industri Perkhidmatan Pendidikan Lanjutan dan Sepanjang Hayat.* Currently, there is one existed standalone system that is developed using MySQL and Micromedia Dreamweaver. However, there is still some improvement needed for enhancement that is result announcement. The announcement will be done through the electronic mail that will be sending to the staff.

1.2 Problem Statement

There are a few problems with the current system that had made us for Jempol Community College to come up with the idea to upgrade it. That is:-

1) Manual System

    - The staff still used paper to manage all the records. Thus, all the record is manage separately and the staff has to do the work one by one.

2) Unstable Data

    - By using manual management systems, the data can be lost easily as the papers or files are not handled carefully.

3) Not updated

- Now days, peoples always use computer in many things, so manual management cannot complete with computer management system which will cause more benefits rather than using manual management system.

1.3 Objective

1) Easy to manage the data.
   - By using the computerized system, the data will be easier to manage. The staff just has to key in the data and they will be saved into the system.

2) Ensure the security level of the data.
   - The data will be more secure as the system requires the password in order to access the system. So, there will be certain staff that can access the system.

3) To give feedback about staffs application through by email.
   - The announcement through by email to staff whether their application approved or not.

4) To give announcement for the class training to staff attendances.
   - The system can make list the class training to staff can attend.

5) Provide the print function for report generated.
   - The system can generate and print the report by annually

1.4 Scope

1.1   Manage the staff data

      1.1.1   The data include the staff personal information their education level information and the courses module that they have attended

1.2   Manage the staff courses information

      1.2.1   This is all about the courses that they used to attend

1.3   Manage the staff application inner state and oversea courses that they wished to attend.

1.4   Generate report

      1.4.1   The system will be able to generate the report as the summary of the data

1.5   Announcement through the email

      1.5.1   The announcement will be done through the electronic mail that will be sending to the staff.

1.5 Project Significance

The Career and Staff Training Database System is developed for *Jabatan Industri Perkhidmatan Pendidikan Lanjutan dan Sepanjang Hayat* at Jempol Community College. This computerized system is to make easy the staff to manage the data. All the data are managed by key into the database and they will be saved into the system.

The data will be more secure as the system requires the password in order to access the system to ensure that the security level of the data is protected. So, there will be certain staff that can access the system.

In addition, this system will manage the staff application inner state and oversea courses that they wished to attend. The staff can apply their courses and training chosen whether inner state or oversea by accessing this system. Beside that, the announcement application result will be done through the electronic mail that will be sending to the staff who applies the courses.

1.6 Conclusion

As the conclusion, hopefully this proposed system would be an efficiency system that the current system used is a stand-alone system while the system proposed is a web-based system. This web-based system (The Career and Staff Training Database System) can be accessed via local network (Intranet). Hope that this system will increase the efficiency of data information and management system.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter focuses about literature review and project methodology. For the first topic can discussed about literature review is fact and finding based on the project title for the system. For the project methodology, this part can explain about what method will be used to develop the project and the project that will be developed to follow with the project schedule and milestone.

2.2 Fact and Finding

1. Definition of career

The meaning of a career is using every opportunity to learn and develop skill for the staff. A career is much more than just full time employment. There should be some activities considered an important part of career especially for formal education and training (Tee.R. 2002). The activities include permanent or casual contracts, development activities, work based or private learning and informal studies or self-taught material.

2. Theories of Career Development

The career development very important of this short of activity as part of work and really need to find the effective solution or find another career in the system. The opinions for Richard S.Sharf many theories of career development tend to be a subset of

personality theories, which include how people relate to work and career issues (Sharf.R.S.2002).

3. Developing a Training Staff

Traditionally for most companies, a training department is born more out of necessity than careful planning. Typically, when a training department really takes off, it is more for reactive reasons than proactive reasons. Assuming your decisions are based on the letter, here are a couple of thoughts you many want to considered To establish a reputation for quality, the first thing a training department must do is make a statements to the others department or outside organization of its competence. There is really only one way to do this and that is to start training. Most likely, this will come from a request or need from another department. Once it is determined that, in fact, there is a need, be sure the department is not on the line to do too much (Jolles.R.L. 1975). In order to develop the staff training department importantly, it should understand the staff's requirement. It is whether they the right course which mean related require field and to ensure the actual course objective will be achieved.

4. Database Management System

The first commercial database management systems appeared in the late 1960's. These systems evolved from file system, which provider some of item (3) above; file system store data over a long period of time, and they allow the storage of large amount data (Ullman.J.D, Widom.J. 1997). The develop the system, the large of storage must very important because many gigabytes or more a long period, keeping it secure from accident or unauthorized use and allowing efficient access to the data. Beside that, control access to the data without allowing the action of one user to affect other user and accesses to corrupt the data for the system.

5. Database System

The design to manage large bodies of information. Management of data involved both defining structure for storage of information and providing mechanisms for the manipulation of information. In addition, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access (Silberschatz.A, Korth.H.F, Sudarshan.S. 2002). The data are to be shared among several users and the system must avoid possible anomalous result because information is so important in most organization, computer scientists have developed a large body of concept and techniques for managing data.

6. Training & Career Homepage

This homepage was developing by Army Civilian. This system can managed the career development and training class announcement for the staff. The staff can proposed what the course can attend the class training. The homepage is an online accessible internet application.

Figure 2.1: Example Screen for Training and Career Homepage

The Career and staff database system can proposed the courses for staff training in Jempol Community College. This system was developing for the course information for the staff and courses for staff can attend. After that, this system can give a feedback the announcements just approve or not for class training will be attend and the system can generate the report for the staff their attended the courses in annually report. These systems develop with web based system but can be accessed via local network (Intranet). Hope this system can be improving compare with the Training and Career Homepage.

2.3 Project Methodology

Methodology that will be used is Object-Oriented Analysis Design (OOAD) and object concepts are *Unified Modeling language* (UML). The RUP is known particularly applicable to develop software or the system effectively using the proven techniques. The phase for RUP is inception, elaboration, construction and transition. The following table corresponds to the activities that will involved the in each phase.

Table 2.1: Activity of every phase

Phase	Activities
Inception	1. Identify objective, scope and requirement for the Career and Staff Training Database System. 2. Define the literature review for case study, journal, website and book according to system title. 3. Define the project methodology for the system.
Elaboration	1. Plan the project and specific the project features. 2. Draft the software architecture. Example is use-case, activity and sequence diagram.
Construction	1. Develop the architecture design 2. Design the physical database.
Transition	1. Conduct the unit testing, integration testing and user acceptance test. 2. The product has produce to the end user.

2.3.1 Advantages for OOAD Methodology

The advantages of the OOAD methodology are:

1. System provides the flexibility and control necessary to deal with evolving requirement.

   > The requirement provides an unambiguous description of the system, which both the developer and staff can understand for the system and system can be access at all places in the college. "Providing ways of capturing not only what to program to supposed to do, but also how to it is supposed to do it" (Cantor.M.R.1998).

2. Object help manage complexity.

   > The function and workings of a well written system can be easily understood because objects encapsulate their interaction can be understood without worrying about the detail and again making the code easier to understand for the system flow. By focusing on more elegant design. "Hiding the internal working of the object from the rest of the system, this permits division of state, function, labor (Cantor.M.R. 1998).

2.4 Project Requirements

2.4.1 Software Requirement

Table 2.2: Software requirement Tool

Tools	Description
PHP My Admin	Appropriate programming language to develop the web-based system.
Rational Rose	To develop the UML diagram.
MySQL	As a database tools to support system data.

2.4.2 Hardware Requirement

Table 2.3: Hardware Requirement Item

Item	Devices	Specifications
System	Processor	At least Intel Pentium 4
Memory	Cache Memory	256 MB
	Random Access Memory (RAM)	At least 256 MB DDR
Storage	Hard Disk Drive	40 Gb or above
	External Hard Disk	40 Gb or above
Network	Transmission Speed	ISDN/ADSL
Input Devices	Keyboard	Basic Compatible Keyboard

	Mouse	Standard 2 button serial mouse
Output Devices	Monitor	Standard Compatible Monitor
	Printer	Standard Compatible Printer

2.5 Project Schedule and Milestones

- The grant chart has draw in order to display the process of develop and timeline of The Career and Staff Training Database System progression. (Refer to Appendix A).

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2.6 Conclusion

This Chapter describes the literature review of The Career and Staff Training Database System. Literature review discusses the fundamental concept of career, developing a training staff and the theories of career development. Also there is the information on database management system and also features a case study on Practice of Lifelong Learning.

Other than that, this chapter elaborates the methodology that will be used in developing the system. The methodology chosen is the Object Oriented Analysis and Design (OOAD) using UML. Lastly, this chapter describes the software and hardware requirements in term of database, programming language, report printing and the storage capacity.

CHAPTER III

ANALYSIS

3.1   Introduction

This chapter focuses on analysis design and problem analysis of the current system situation in requirement analysis. The first section is about problem analysis, it will discuss and review the discussion about the current system. After that, this part will discuss about the diagrams. The explanations for the diagram will be drafted in the activity diagram. The activity diagram will be implementing Object-Oriented Analysis Design (OOAD) methodology and Unified Modeling language (UML) notation to visualize system flow so that it is understand to user.

For the next section, it will discuss about the requirement analysis. In this chapter requirement analysis that will consist of main functional requirement of the system followed by detailed explanation. Lastly, this chapter will discuss about the system requirement such as software requirement, hardware requirement and network requirement.