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Saya NORSHAHIDA BINTI MOHD MOKHATAR

(HURUF BESAR)

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(TANDATANGAN PENULIS)

Alamat tetap: NO.48 LRG IS 17,
TAMAN UNDEKA SEMPURNA,
25150 KUANTAN, PAHANG.

Tarikh: 17.11.06



(TANDATANGAN PENYELIA)

Nama Penyelia: Pn. Noraswaliza Abdullah

Tarikh: 17.11.06

CATATAN: ** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

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Mohd Mokhtar.

CONTRACTOR MANAGEMENT ONLINE SYSTEM

NORSHUHaida BINTI MOHD MOKHATAR

This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Database Management)


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

DECLARATION

I hereby declare that this project report entitled

Contractor Management Online system

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

STUDENT:  _____ Date: 17 November 2006
(NORSHUHaida BINTI MOHD MOKHATAR)

SUPERVISOR:  _____ Date 17 November 2006
(PN. NORASWALIZA BTE ABDULLAH)

DEDICATION

I dedicate this project to my beloved mum that helping me very much and spent so many time and money to me during my PSM 1 and II. All of your patience and your advices are always in my mind. This dedication also for my lecturer and supervisor, Puan NorAswaliza Bt Abdullah and to all my lovely friends..

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ABSTRACT

During the PSM, all of the students in KUTKM should provide one project according to their majoring to fulfill the criteria as a bachelor student. KUTKM is a hands-on university in Malaysia and because of that all of the students in KUTKM need to finish and pass the PSM 1 and PSM 2 to become a good student and a good worker in industry later. The system that will be developed is about the contractors in district offices in Pahang. Contractor Management Online System (CMOS) is developed for the State Development Office (SDO) Pahang and the district offices in part of Pahang for collect the contractor information and to make the vote selection process. CMOS is developed to replace the old method that used in district offices which are all the contractor information is collect manually by records the data into Microsoft Word and logbook. Beside that, the vote selection information stored in Microsoft Excell that make the problem to the officer and staff in finding the information because there has redundant data. Obviously, the current system is inconvenient and has brought some problems that impact the management efficiency. The Data Flow Diagram (DFD) was used to describe the current and to-be system. Beside DFD process, the decomposition diagram is also used to describe the to-be system data for analysis phase. Entity Relationship Diagram (ERD) was used in conceptual design and normalization and data dictionary were used in logical design. The logical and conceptual design is a sub topic in design phase. All the phase has their importance to develop the system into the real world.

ABSTRAK

Di dalam Projek Sarjana Muda (PSM) setiap pelajar KUTKM perlu membangunkan satu projek berdasarkan kursus yang di ambil bagi melengkapkan kriteria sebagai seorang pelajar ijazah sarjana muda. KUTKM adalah sebuah universiti amali (hands-on) di Malaysia dan disebabkan itu semua pelajar mesti menyiapkan dan lulus subjek PSM 1 dan PSM 2 untuk menjadi seorang pelajar yang berjaya dan seorang pekerja yang baik di industri satu masa nanti. Sistem yang akan dibangunkan adalah berkaitan dengan kontraktor di semua pejabat daerah di seluruh Pahang. Contractor Management Online System (CMOS) dibangunkan untuk Pejabat Pembangunan Negeri Pahang dan pejabat daerah di seluruh Pahang untuk mengumpul maklumat kontraktor dan maklumat proses pemilihan undi di kalangan kontraktor. CMOS dibangunkan bagi menggantikan kaedah lama yang digunakan oleh pejabat daerah dimana semua maklumat diambil secara manual dengan merekodkan maklumat ke dalam Microsoft Word dan buku log. Selain dari itu, maklumat pemilihan undi dimasukkan ke dalam Microsoft Excell dan ini memberi masalah kepada pegawai dan kakitangan pejabat daerah di dalam mencari data kerana berlaku pertindihan data dan maklumat di dalam sistem. Umum mengetahui, system sedia ada adalah tidak sesuai dan membawa beberapa masalah yang memberi impak kepada pengurusan. Data Flow Diagram (DFD) digunakan untuk menerangkan system sedia ada dan system yang akan dibangunkan. Selain DFD, Decomposition Diagram turut digunakan untuk menerangkan system yang akan dibangunkan dan semua gambarajah yang digunakan adalah penerangan di fasa analisis. Entity Relationship Diagram (ERD), normalization dan data dictionary adalah sub topic bagi fasa rekabentuk. Kesemua fasa mempunyai kepentingan bagi membangunkan system ke dunia sebenar.

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LIST OF ABBREVIATIONS

KUTKM	Kolej Universiti Teknikal Kebangsaan Malaysia
PSM	Projek Sarjana Muda
CMOS	Contractor Management Online System
SDO	State Development Office
DBLC	Database Development Life Cycle
ERD	Entity Relationship Diagram
DDL	Data Definition Language
DML	Data Manipulation Language
DCL	Data Control Language
DBMS	Database Management System
DFD	Data Flow Diagram
PHP	Hypertext Preprocessor
LAN	Local Area Network
WAN	Wide Area Network
PKK	Pusat Khidmat Kontraktor

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CHAPTER I

INTRODUCTION

1.1 Project Background

Contractor Management Online System (CMOS) is developed for the State Development Office (SDO) of Pahang and the district offices in part of Pahang for contractors' administration and vote's selection. This system is developed to replace the old method of recording data manually. This is a web based system that can be used by all the district offices in Pahang. The State Development Office of Pahang were requested the system to help them managing the contractors information. This system will connect the officer in SDO with officers in district office.

Basically, the system is used to view the contractor and vote selection information collected by district offices. This system will generate reports about all contractors' information that has been registered with district offices. The statistics about differences of the total contractors' registration with all districts in Pahang will also be produced.

The CMOS had been,designed especially for top level management to view the number of contractors in all districts using the bar graph which are produced by the result of the contractor information. The graph is divided into three sections, which are Successful Vote, Vote List and Overall Contractor Information (by Year,

by District and by Project). The officer can print out the report and bring it to the meeting. Beside that, the clerk can print the confirmation letter about the contractor to prove that they are already registered with district offices.

Beside that, the CMOS will separate the company who get the project not to be listed for the next time vote process and the system will update the current system after project vote finish.

1.2 Problem statement

Mean while, an officer at district office uses different form to be given to the contractors who want to register their company at the district office for the vote selection. The district offices use manual document for storing the contractors' information.

After finish filled the information form, the contractor must include the company profile to be saved in file cabinet at district office. All information about the contractor will include into the report book which will be filled by the clerk. It causes a production report of slow and not efficient. Therefore, when officer need a list of current contractors, a problem occurred because the data is inconsistent. The officer also faced the problem when they want to check the contractor status whether they got a project or not from Jabatan Kerja Raya (JKR), Jabatan Parit dan Saliran (JPS) and State Development Office (SDO). If they got the project on the previous year, the company will be not inserted into the votes list.

1.3 Objective

Generally, the Contractor Management Online System (CMOS) have several objectives that are shown below:

- i) Reduce in time spent on managing the contractors' information.
Before to-be system, the district office only used the filing system to keep all information about the contractors. The clerk needs to find one by one file in file cabinets. This to-be system is faster because it used the keyword to search the required record.
- ii) To keep the data more secure and proper.
The data and information is more secure because only the administrator will manage the system and the user with password can login the system.
- iii) To increase the qualities in SDO management.
The to-be system will make a government sectors is more quality of integrity and responsibility in business orientation.
- iv) To improve the selection of contractors for the vote process.
The CMOS will improve the SDO officers in making the vote process easily.
- v) To ease the processes of producing the reports.
The CMOS will help the admin to produce report smoothly faster.

1.4 Scopes

There have four modules and three different users can login in the same time for this system. The modules and users scope were describes below:-

- i) Registration Module
 - The clerk checked the contractor information in the system.
 - The clerk will update/edit the company profile.
 - The clerk adds the new registering contractor into the system.
 - The admin can update/edit/add/delete the system design.
 - The contractor can insert/update and view themselves.

- ii) Selection Module
 - The officer checked the information about the contractor working experience before.
 - The officer also check the contractor license is active or not whether the end date licensed of the contractor with Pusat Khidmat Kontraktor (PKK).

- iii) Generate Report Module
 - The admin will provide three graphs for Successful Vote, Vote List and Overall Contractor Information (by Year and by District) which are used with different information.
 - The admin will show the statistics about the total of the contractors who are registered as a member with district offices in a part of Pahang.
 - The clerk prints the confirmation letter to be sent to the new registered contractor with district office.
 - The admin print out the three listed in documents file to show in meeting between officers in district office and SDO.

iv) Update Vote Data Module

- The officer will use the latest information to votes the project for contractor.
- The system will separate the company who get the project not to be listed for the next time vote process.
- The system will update the current system after project vote's finish.

1.5 Project significance

The State Development Office of Pahang will use this system and it's being launch at all the districts in a part of Pahang. This to-be system let SDO increase its reliance on managing contractors without the costly administrative overhead they typically incur. Beside that, the to-be system also improved efficiency and remarkable cost savings for the contractor administration processes.

By using this system, the officers in SDO and all districts can maintain the contractors' data easily and all the information will manage by the administrator directly at the database server in SDO department. The selection process can be performing easily and the reports can be generated to be used by the management side.

1.6 Conclusion

As a conclusion, hopefully this project will accomplish all the project scope and the objectives of the system. The growth in the number of contractors who have registered to the district offices in a part of Pahang has created huge potential for businesses to each district to communicate directly to State Development Office (SDO) of Pahang. Therefore, this system will help SDO in managing their data.

The following chapter covers the methods from existing system and there has some important information to follow. It is useful to maintain and manage the to-be system.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter will discuss in detail about the literature review and project methodology that has been used to develop the contractor management online system. Literature review is preview about the research, case study and other finding that relate with the project title while the project methodology is to describe the selected approach or methodology used in the project.

2.2 Fact and finding

This chapter to state the approach and related or passed research, references, case study and other finding that relate to the project title.

2.2.1 Vote Process for Contractor in SDO

The current system for vote process in SDO Pahang is using the Microsoft Word and Microsoft Excell to save the contractor information and the result of the vote selection which are done by the contractor for each selection. Before the result is inserting into the file system, the staff at each district office must handle the voye selection process using the ball election. The contractors were call one by one using the registration form to select the ball in the box. The staff will draw the number at the ball based on the project code. If the ball is zero this means that, the contractor is not get the project and the contractor need to wait for the next project. The SDO Officers needs to goes to each district office to manage the vote process and it's have a lot of missing information during the vote process.

2.2.2 Case Study

This sub topic presents insights and voting areas and the lessons to be learned from each one. The first focuses on the voting system using the option button at Pusat Khidmat Kontraktor. Besides that, the PKK also provide the way to manage and maintain contractor information in Malaysia. The second is focuses at the contractors registered and getting the tender for the projects that offered in agencies and this website was developed by private sector in Malaysia.

2.2.2.1 Pusat Khidmat Kontraktor (PKK)

Pusat Khidmat Kontraktor (PKK) builds their website using the Active Server Page (ASP) as an engine to displays all the information from the agency. PKK was develop for the entire contractor and will be as the references for them to