SPM CANDIDATE REGISTRATION ONLINE SYSTEM

ABDUL HAFFIZ BIN ZAKARIA

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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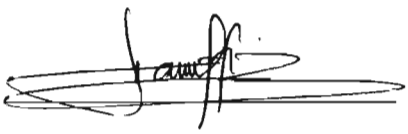

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SPM CANDIDATE REGISTRATION ONLINE SYSTEM

ABDUL HAFFIZ BIN ZAKARIA

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2008

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DECLARATION

I hereby declare that this project report entitled

SPM CANDIDATE REGISTRATION ONLINE SYSTEM (SCROS)

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

STUDENT : Date: 24 JUN 2008

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DEDICATION

To my family that always been my pillar of strength and also to my beloved friends that give me full support.

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Firstly I would like to thank my supervisor, Encik Yahya Bin Ibrahim for giving assistant and guidance to complete this project.

I would also like to thank my beloved parents who always give me so much support during developing my project.

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ABSTRACT

The development of this system is purposely to manage business process and overcome problems faced by education department of Terengganu during managing their examination registration process. In current time, this department has no computer system to help them in managing their business. This will cause several problems occurred such as loss of data, data cannot be analyzed and also large amount of data cannot be managed in one time. The study has been made during developing the system and among of the study are by searching on the internet about existing system that is similar with the system that want to be developed. Besides that, the study from related journals and books also has been made in order to help finishing the project. The output from this project is one computer system that can help the department to manage their registration process.

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ABSTRAK

Pembangunan sistem ini adalah bertujuan untuk melicinkan proses pengurusan perniagaan dan mengatasi masalah-masalah yang dihadapi Jabatan Pelajaran Negeri Terengganu dalam menguruskan proses pendaftaran peperiksaan. Pada masa sekarang Jabatan Pelajaran tersebut tidak mempunyai satu sistem komputer untuk menguruskan proses tersebut. Ini menyebabkan mereka menghadapi beberapa masalah seperti kehilangan data, tidak dapat membuat kajian tentang rekod terdahulu dan juga tidak dapat menguruskan data yang banyak dalam satu masa. Sistem ini akan digunakan oleh staff jabatan dan juga guru yang bertanggungjawab di seluruh sekolah negeri Terengganu tersebut dan ia dibangunkan dengan merangkumi beberapa modul yg bertujuan untuk menyelesaikan masalah yang dihadapi. Beberapa kajian telah dijalankan semasa menjalankan projek ini dan di antaranya adalah dengan membuat kajian di internet berkenaan sistem yang sedia ada dan hampir sama dengan sistem yang ingin dibangunkan. Output yang dikeluarkan diharap dapat membantu melicinkan proses pendaftaran peperiksaan calon peperiksaan SPM di Negeri Terengganu Darul Iman

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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
SCROS	SPM Candidate Registration Online System
SDLC	Systems Development Life Cycle
SSADM	Structured Systems Analysis and Design Methodology
OOAD	Object Oriented Analysis and Design
DFD	Data Flow Diagram
DBLC	Database Life Cycle
ERD	Entity Relationship Diagram
3NF	Third Normal Form
DBMS	Database Management System
PHP	Pre-Hypertext Processor
SQL	Structured Query Language.
PK	Primary Key
SQL	Structured Query Language
DBMS	Database Management System
RDBMS	Relational Database Management System

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CHAPTER I

INTRODUCTION

1.1 Project Background

Most of the organizations have their own database to manage their records efficiently. Education Department of Negeri Terengganu is one of the departments to take responsibility about education in Negeri Terengganu. The Education Department has candidates who are sitting SPM Examination for every year. To make candidate data is secure they need systematic application systems to manage information about the candidates.

This SPM Candidates Registration Online System is developed to provide enhanced registration of SPM candidates for Education Department of Negeri Terengganu. This system developed to manage candidate data consists of subjects and also profile details. The user of this system is worker in department education and also teacher who in charge SPM candidate in their school. In addition, the system also enables to record data, manipulate data and retrieve data in efficient way. Besides that, the system also will make the operation and management going smoothly and accurately.

Currently the department uses manual system to manage the candidate's data. Candidate will be given a form and they must fill the form. Therefore, there will be a risk where the file in manual system maybe lost or damage. Besides that, using the manual system is not very secure system.

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After that they must go to Education Department of Terengganu and give the list of candidate who registers to sit SPM examination. The existing management ways is not efficient to keep secure the data. Besides that, there will be a risk where the file maybe lost or damage. Rather than that, this is not very secure system.

1.2 Problem Statement

Every year, Education Department of Terengganu will have more than hundred SPM candidates for sitting their SPM examination. The candidates' registration is done by using manual system. To solve the problems of manual system, the to-be system is developed. This to-be system is developed based on the problems that occur from the current manual system. The problems are stated below:

i. The Current Procedure Is Done Manually.

Currently the existing procedure does not have a systematic and secure system to organize the candidates' record. The candidates are given a form and they must fill it. After that, the responsible teacher must key in the data into the Microsoft Excel and send it to the education department of Terengganu. Using the manual system give a lot of trouble to the responsible teacher. If the data lost or damage, the teacher must collect again from the candidate and it takes a lot of time to done it.

ii. Information Achievement

In using the filling system, we cannot control the data from unauthorized person. The data can be view by anybody.

iii. The System Cannot Generate Report Systematically.

The department's staff and the teacher need to generate report manually. They only can print the data and get the report using the Microsoft Excel. With the to-be system, the department staff and teacher can generate reports more systematic.

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iv. No Database Administrator (DBA) Facility

The education department did not have database administrator to manage the candidates' information database. All the data and report are controlled by department staff and responsible teacher in every school in Terengganu. It will make the management process become difficult.

1.3 Objectives

Regarding the problems explained before, the main goal of developing SPM Candidate Registration Online System (SCROS) is to have that will keep track of candidate information. Therefore, the objectives of the system are as follow:

i. To Generate Computerize System

SCROS will be generating in order to record and stored all the data and information in a specific tables. This system will contain candidates' information, candidate subject, and also candidate school. Candidate needs to fill the information form then the staff or responsible teacher will insert the data in the system.

ii. Information Achievement

Only authorize user can access the information in this system. In order to access this information, system users are provided with user id and password.

iii. To Generate Report Systematically.

This system can help the staff and the responsible teacher to generate the report. This system is allowed to generate the report automatically. It also provides a function to generate the candidates' information detail and also subject that the candidates sits in their SPM examination.

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iv. Facility For Database Administration (DBA)

This system provides functions to enable DBA to create table based on information given. The table requirements are table name attributes data types and contains.

1.4 Scope

The project scope divided in to three (3) sections such as project scope, module scope and target user. Project scope will explain the overall scope of the project. Module scope will explain all the modules scope that will be including in the registration online system. Target user will state the users of the system and the system limitation for each type of users.

Project scope of this online system are covered all secondary school in Negeri Terengganu Darul Iman and also Education Department of Terengganu. This system only use to register all information about candidates who are sitting their SPM examination. This online registration can be access via internet in everywhere but only person only has access to the website can only use it.

This system has their target user. The target user divides into two (2) categories. First category is back-end user. Back-end user is administrator Staff of Education Department. Administrator will be able to maintain the databases and registration operation process. Administration also responsible to secure all the data and do function that the database needs. For example the administrator should do backup every day. Second category is front-end user. Front-end user also recognize as normal user or end user. Front-end user contains the teachers who are responsible to key in the candidate data into the online system.

The module of the system has been divides into four (4) main modules as following:

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i. Login Module

This module use to identify teachers or staff in Education Department. Only authorized staff and teachers can enter the website.

ii. Record Candidate Information

This module allows user to register candidate information online. System will record all the information and save it into database. The systems will also facilities user to add, delete or update their candidate information or other required information on internet. This module is design to give more independent to teachers to use this website.

iii. Queries Information Module

This module allows user to search and view the data about their school candidates. For preview the candidate data, user only can preview the data if candidate study in user's school. User can not preview data other school's SPM candidates.

iv. Administration Module

This module only for administrator works at Education Department of Terengganu. This module allows administrator to do backup and recovery, do database creation, and generate report.

1.5 Project Significance

The SPM Candidate Register Online System (SCROS) has been developed to help teachers and also staff in Education Department to manage the subject

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registration more efficient. There are several benefits that have come up with the development of the system as will explain below.

SCROS will record the candidate's information and also the subject when they sitting for SPM examination. With this information, the Education Department of Terengganu can track and also know how many students sitting for their SPM examination every year. The Education Department will easily obtain the information of candidates as they request.

Besides that, with this project, both side either teacher or staff in Education Department can save their time and also can concentrate to other work to do. For example using this system, the teacher do not waste their time to go to department but only sitting in front of the computer and key in the data using online registration. With this system it also helps both sides communicate with more easily.

1.6 Expected Output

The expected output of this project is web based system with four (4) modules. After SPM candidates Subject Registration Online system (SCROS) was developed user can expected that the system:

i. Computerize System With Web Based System

When the to-be system is already done and enable to use, the user can get more benefit with its function. For example teachers do not need to worry about critical data losing or damage because there are a secure database is come with the to-be system. Staff of Education Department also no need waste their time to check the information system with the manual system because there is a function that staff can check the information automatic with search function.

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ii. Information Achievement Will Be Limited

Critical data is more secure when information achievement is limited. Only the authorize user can do function in this system. Unauthorized user can not access this system because the system came with user id and password.

iii. Report Can Be Generate Systematically

The user can generate report more systematically. With the manual system, the user can not generate any report. User can view any information about the candidates and their subject when generate a report.

iv. Database Administration Get Facility In To-Be System

With the facility, the DBA can organize the database system and also the whole process in the system more efficient. With this facility also, the DBA can view every process has been done in this system.

1.7 Conclusion

This chapter contains the detail description of the propose project which is SPM Candidates Subject Registration Online System (SCROS). From this chapter, the problem faced by the Education Department and also the teacher who is in charge to register their candidates was identified and the main objective and the scope of the project were clearly defined. In this chapter, the possible solution is suggested.

Chapter 2 will discuss on the literature review and the methodology that will be used in this system.

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