

Universiti Teknologi MARA

SMKDAR e-RESULT SYSTEM



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DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline

NOVEMBER 5, 2007

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ABSTRACT

Today's life completely relies on computer system. All this scenario happens to teachers at the Sekolah Menengah Dato' Ahmad Razali, Ampang. When the exam season, they always get the headache to count the mark then plus with the other subject then calculate again and then compare to another students to get the class ranking or grade. This take so much time and sometimes teachers make a mistake in counting, so the teachers need to recalculate. This is what the researcher mean with the simple works but need to do with the hard way. After that they need to do the statistic calculation, draw the graph and many more that takes time. This is the big problems for the teachers, in addition all the report card and reports about the exam need to be sent and present just a week after exam. So, as the solution researcher come out with the system that will solve the problems. Teachers will be using the system and enter the mark and in a few second all the works done. The class ranking will be calculate automatically and accurately. No more manual calculation that will give headache to teachers. This system will be design interactively and easy to understand and use. Beside that, it will keep the previous record and teachers can access it quickly. This system obviously will make teacher's simple jobs done in easy way. So teachers at SMK DAR have more time in focusing in other job that is really hard to do.

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LIST OF ABBREVIATION

SMKDAR : Sekolah Menengah Dato' Ahmad Razali

UW : Univesity of Washington

GPA : Grade per Accumulative

SDLC : Systems Development Life Cycle

ERD : Entity Relationship Diagram

DFD : Data Flow Diagram

RDBMS : Relational Database Management System

SQL : Structured Query Language

PHP 5 : Hypertext Preprocessor

SMS : Short Message Services

CHAPTER 1

INTRODUCTION

1.1 Introduction

SMKDAR e-Result system was developed to provide an easy accessibility for teachers to manage their student's grade book. This system is a web based system that allows teachers access the system from anywhere. Even they are in holidays. There is no need to be in school in just to complete the marking paper and produce grade book. By using this system teachers can easily enter student marks, and then the system will produce the result. This system also allows parents to monitor their child exam result via this system. Because almost all of the parents working in office hour, they don't have time to meet the class teachers. So they can check their child result from their workplace or else. All the features of this system make ease for the parents and teachers and can save their time. From all of this we can make an analysis and comparison of how effective this system compared to the manual method. This system is developed for Sekolah Menengah Dato' Ahmad Razali(SMKDAR), 68000 Ampang, Selangor uses.

1.2 Problem Statement

For the time being teachers at SMKDAR using manual method and for the teachers have knowledge in using computer they use Microsoft Excel application. Marking paper and calculate all the marks manually for teacher is a hard task. Especially for class teachers they have more responsibilities in producing grade book compared to other teachers. They need to collect all the marks for all their students subjects, calculate all those marks, compare the total mark to calculate the class rank for that particular class and then rank between the classes in that form. Then finally

they jot down everything in the grade book. There are so many tasks to do before the grade book can submit to students to present to their parents. For others teachers they also have many tasks to do, they need to do an analysis for the class and for each subject that they teaches. All these tasks take a lot of time

Besides, doing calculation manually causing lots of mistakes. Even been check several of times , teachers often make mistake on giving grade because of the many calculation has to be made, comparison between each student to achieve the best among the best. Another problem is every time they need to do reference to the past achievement in exam, they need to find back all the record that keep in the file. It takes time to find past years record because all that was documented in paper. All this problems burden teachers so much.

The implementation of SMKДАР e-Result System will solve all these problems. By using this system teachers can save their times because they don't have to do all the calculation, just give the input to the system and it will produce the grade book. Even for those who don't have much knowledge in computer usage they still can use the system. Teacher will gain a lot of benefit from the program services. Parents also can monitor their child result from this web based system.

The similar kind of system widely used in other country such as Europe and America but not in our education field. Even though it is, it's only implementing in a big organizations such as college, university and in private school. For government school it's not widely use, and if there is, no documentation has been made about this system.

1.3 Objectives

The main objective of this project is to design and develop a web based system for teachers to produce student's grade book.

1.4 Project Scope

- 1) This system will be implementing at SMK DAR Ampang, Selangor.
- 2) The scope of audience or respondent for this system will be the teachers and parents

1.5 Project Significant

The significant of the system is to develop a system that can do all the calculation and process a grade book for students at SMK DAR. This finding is beneficial for certain group of people, namely:

1. Teachers of SMK DAR.

Through the implementation of this system, teachers can produce the grade book faster. It also can save teachers time. This system can calculate accurately the analysis of exams in a fast manner. Instead of teachers can do this task from all over the place

2. Parents of students SMK DAR

All most all of the student's parents work in office hours, which mean half of school day. This sometimes brings problems for parents to meet their child's teachers to discuss about their child performances in school. Through this system, parents can monitor their child performances in exams. Parents can check out their child result via this web-based system from all over the place. It can save the time.

1.6 Overview of the Research

Chapter 2: Literature Review

In chapter 2 more details of the research project including definition of terms and related works will be discussed.

Chapter 3: Methodology

In chapter 3, the methodology using for development of the system will be discuss. This chapter also defines and discusses details description of the method and materials used.

Chapter 4: Implementations and Finding

In chapter 4, shows the implementation and finding of the project .All explanations of this system is in this chapter.

Chapter 5: Discussion, Conclusion and Recommendation

This chapter presents the discussion and conclusion of this project. The propositions for further works are also given based on the results and findings in order to attain more effective result in the future.

1.7 Summary

This chapter begins with an introduction that gives a broad overview of this project. Then, the problem description, project objectives, project scope and project significance are explained in several sections to established proper understanding towards the development of system.

CHAPTER 2

Literature Review

2.1 Introduction

This chapter will review all related work regarding to SMK DAR e-Result System. Discussion about the term and related works also provided in this chapter.

2.2 Online Grade Book.

Online grade book is a program that provides a fast and convenient way to record student scores and automatically compute the grades.

2.2.1 Features Of Grade Book System

2.2.1.1 User friendly interface.

The most important element in the system is the interface, if the interface is comprehensive and user friendly the user will love the system. This element was very important in this project. The interface was designed in very user friendly environment. This is important in order to make the teacher's job easier. It will be a few buttons that teachers can use to complete their job.

2.2.1.2 Accurate calculation

The other element that is important for this project is accurate calculation. This is very important in order to avoid mistake calculation. Using the programming language the programmer will coding the system accurately.

2.2.1.3 Comprehensive Function

This system completed with a few functions that will make the teacher's job easier. The functions including calculation for class rank, the grade book, print the current transcript, make the analysis of the particular subject and classes and yearly analysis and also to keep track the previous record.

2.3 Web-Based System

Software based on the Web. This can refer to almost anything Web related, including a Web browser or other client software that can access the Web. It can refer to software that runs on Web sites or software that is stored on Web sites and downloaded to the user. Also an application in which all or part of it is downloaded from the Web each time it is run. The term typically refers to the use of Web browsers and Java applets, but may also refer to any client/server interaction in which a Web server is involved.

2.4 Similarities Study

This section discusses on the literature reviews of previous works and documents refereed during this project

2.4.1 Microsoft Excel Grade Book; Calculate Student Grades With Ease

By Towson University (2005)

This paper describes about their grade book system. This system is using the Microsoft Excel as the application. The objective of the system is create a grade book in Excel to automatically calculate averages and cumulative totals. According to this paper “Although there are as many different types of grading schemes as there are teachers, two methods exist that allow for many different variations, points and percentages”.

The similarities study with this project is both project objective is to automatically calculate while the different is using the different application which is this project using the Microsoft Excel.

2.4.2 GradeBook; Turnitin’s Online Grading Solution by iParadigms, LLC

This paper discuss about the new Turnitin ‘s Online System grade book that combines the flexibility and at a glance usability of traditional pen and paper gradebooks with the features and functionality of software-based grading tools. GradeBook’s advanced scaling and on the fly grading functions give unprecedented flexibility for fine-tuning of students and classes grades.

2.4.3 Network Gradebook: A customizable solution for schools and teachers by Andy Strierner (2001)

The purpose of this project was to create a gradebook database that could be used by staff in any school environment where students have subject specific classes, thus it will probably be most easily used in Middle school, High school, and college environments. It was designed to be able to be used by an individual teacher on their workstation, but more importantly could be used in a networked environment. The database was created in Access so as to be easily able to be customized should a school need to make changes.

This system is different with our studies because it is stand alone system that can only be access at that school only.

2.4.4 Posting Grades in the WebCT Grade Book by WebCT

This paper discuss about the grade book tool that provides an easy and convenient way for instructors to manage grades and distribute them to students. Using the Grade Book and the My Grades tool, instructors can post grades such that students can only see their grades. The objective of the project are create a secure and accurate electronic grade collection process, expedite grade collection and posting to student records, improve grade submission process for instructors, provide error-checking and feedback to instructors at point of entry and improve security and confidentiality of student records

The similarities studies are this system is a web based system and to reduce or eliminate manual processing of grades.

2.4.5 Basic Gradebook Features in Chalk by University of Chicago (2006)

This paper describe about the gradebook that develop by Chalk. This gradebook is a useful tool for entering and keeping track of students' grades in Chalk. Instructors may enter grades for items such as term papers, projects, and mid-term or final exams. With this grade book, instructors make students' grades available to them, or simply keep track of grades without displaying to students.

The similarity with our project is this grade book can keep track of students grades.

2.4.6 Web Grade Book and Web Grade Collection by Todd Mildon (2006)

This paper discuss about current system that have been used at University of Washington and why there are choosing to use this system at the university. The University of Washington (UW) MyUW Web portal offers a MyUWClass view of information to instructors at the UW. A potential feature of the MyUWClass portal includes a Gradebook database application (Gradebook). Gradebook will provide the means for instructors to track calculate and submit grades for classes using the Web. The Gradebook project calls for the development of a web-based application that UW faculty

would use to track students' exam and assignment scores during the quarter. At the end of the quarter, final grades would be submitted to the Student Database System. Gradebook would be accessed from the MyUWClass page of the MyUW Faculty pages. Only faculty listed in the Time Schedule for the class would be authorized to use the Gradebook page.

This project uses the different approach in implementing their system. However the similarity is this system is an online system that based on web.

2.4.7 The Gradebook by University Of West England (2006)

This system allow student to take part in an assessment or submit an assignment in UWEonline, students answers may be automatically marked and stored by the UWEonline system, or marked by the tutor and manually added to the Gradebook. The Gradebook allows students to check their marks in each assessment, see student average score across all assessment, review the answers and any feedback provided by the tutor and do a comparison between student performances with the class average.

This system uses the different approach with our system where are the students can take part with their gradebook. This system allows students to review their gradebook and can check their marks.

2.4.8 D2SC Gradebook System by San Marcos Elementary Teacher's Guide (2006)

This paper describe about their grade book system. The objectives and benefits of the systems are teachers are able to enter grades from any computer connected to the Internet, teacher's data will never get

lost, multiple years of students grade and high stakes data online and student schedule and demographic information online. Beside that, this system also have the ability to compare students to other students throughout the district and print gradebook information for substitutes and enter an entire year's worth of assignments in one sitting.

This system use the same approaches where is this system is the web based system and the features that provided almost similar with our project that is teachers data will never get lost and can print the gradebook information.

2.4.9 Home of Grade Point Grading program for Teachers by Paper Trail Software (2000)

This is the grading program designed that simplify the time-consuming tasks that go with teaching. Use it to get grading and reporting done easier and faster. With this program, teacher stay organized. The student information that needed is always at teacher fingertips.

The similarity of the study is easy to use. The screens and simple and intuitive. The main function is to make grade and reporting done easier.

2.4.10 Making the Grade: Teacher Grade Book Software by Jay Klein Productions (2006)

This software can be use by using Windows (XP, ME, 2000, NT, 9X) and also for Macintosh (OS X or 9). The objective of this software is to maximize teacher classroom time and simplifies daily record keeping with an easy-to-use gradebook, integrated attendance record, seating chart, student portrait studio. The features of this gradebok system are reporting System

records grades, exam scores, comments and averages, easy grade entry and automatic grade calculation. This system will quickly and accurately calculate honor rolls, class ranks, credits and GPAs. It also produces professional report cards with informative comments and print permanent transcripts for post-graduate applications and school-to-work programs.

The similarities studies are the features and the usage that using almost the same to auto calculate grade, record grade and easy entry the grade. The other similarities are this system also will produce reports card and transcripts for student.

CHAPTER 3

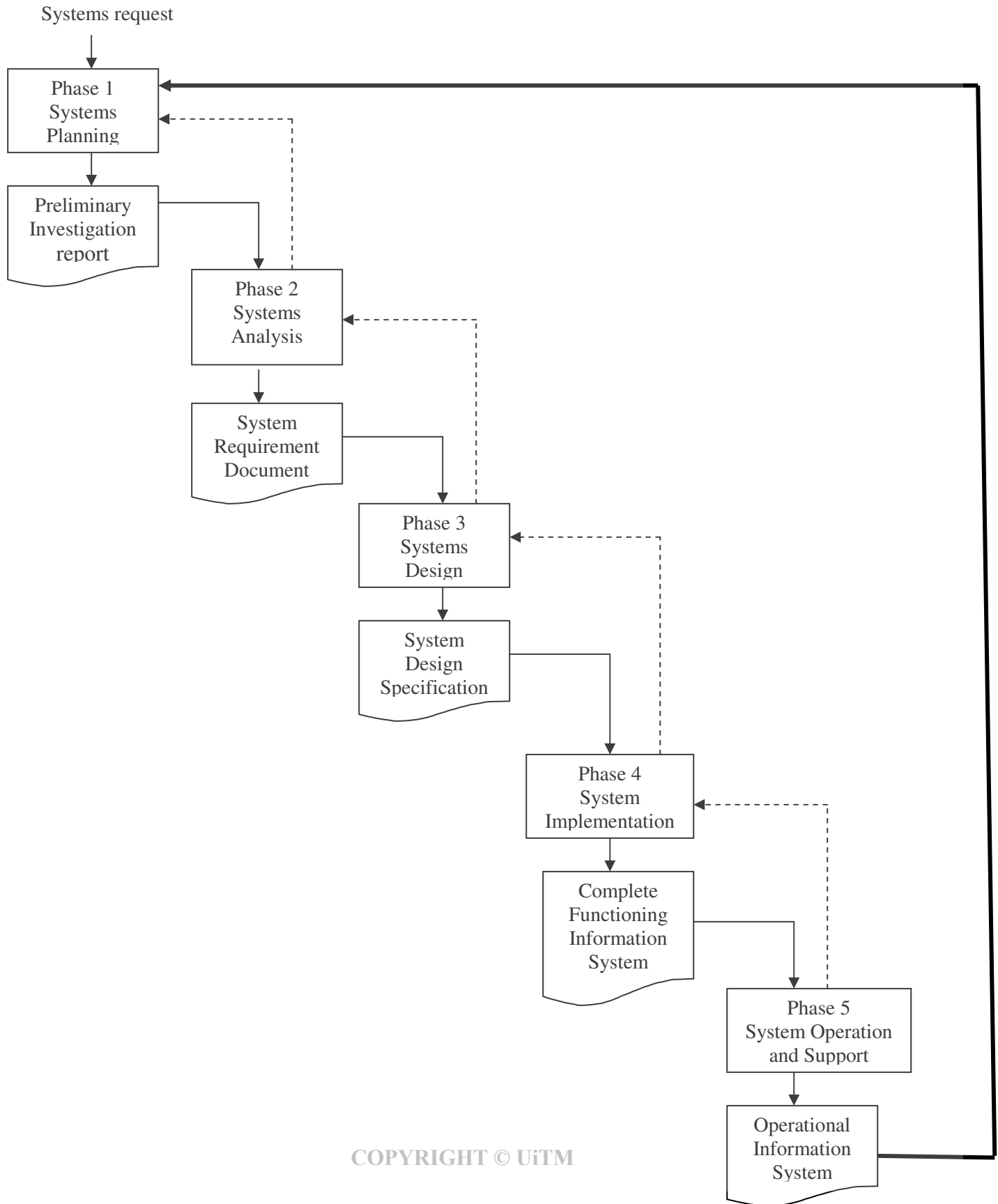
METHODOLOGY

3.1 INTRODUCTION

This project using the Systems Development Life Cycle (SDLC) as the methodology. The SDLC is a concept to plan, analyze, design, implement and support an information system. SDLC describes activities and functions that all systems developers perform, regardless of which approach are using. The SDLC model includes the following steps:

1. System Planning
2. System Analysis
3. System Design
4. System Implementation
5. System Operation and Support

Figure 3.1 : The phases and deliverables of the SDLC phases



3.2 Phase 1: Systems Planning

During this phase, the project nature and scope was identified. This is important step because the outcome will affect the entire development process. This phase begin with a formal request, called a system request that describes problems or desired changes in an information system process. This project request come from the teachers of SMK DAR. At this phase also the developer learn more about the grade book process. During the planning all task has be determined and scheduled in the Gantt chart included in Appendix A.

3.3 Phase 2: Systems Analysis

This phase require the developer to understand more about the grade book process. To understand the process the developer need to do a research on how the process working, what are needed in order to produce the grade book, what is the user requirement, cost, project development time, benefits and so on. To complete this requirements modeling the developer perform an interviews, document review and observation. The result was used to determine the entities, the attributes and the relationship. From that ERD, DFD and flow chart can be draw.

3.3.1 Data Collection

To understand more what the grade book is and how the processes . It is the process of gaining information. This research is involving primary and secondary data. In primary data, interview is important to identify and understand the current process. The outcome from it is to get the result from them and as a guideline to find the data for literature review and for the development of the project. In secondary data can be divided into two that are offline resources and online resources. Offline resources are collected from books, articles and thesis.

Online resources are retrieved from websites and online which provide journals, articles and latest news.

3.3.1.1.1 Primary Data

a) Interview

In this section, interviews conducted to obtain data from SMK DAR teachers. To find out what exactly they needed and how their current process works. All the data was used to develop the diagram and flows and also useful to develop the project.

3.3.1.1.2 Secondary Data

a) Offline Resources

Offline resources are collected from books, articles and thesis. Information from books serves to find what the evolution of using grade book in school is. It is important to study how grade book is developed and what is the important element in producing grade book. The news and articles are collected from recent newspaper and magazines.

b) Online Resources

Online resources are retrieved from websites and online which provide journals, articles and latest news about grade book system. It also using to

find the example of the current system that widespread used. All this data are useful for developing the system.

3.3.2 User Analysis

User analysis is to fulfill the user requirement. It is important in order to fulfill user needed. User analysis will describe the target user of SMK DAR e-Result System.

a) Priority User

Priority user is someone that can have a full access that can edit, manage or change the system.

Administrator.

Administrator has fully access to the SMK DAR e-result system. In this case, the administrator is a teacher that handles all about the exam at this school. This teacher has responsibility to update the information about the exam, give the password to all the SMK DAR teachers for using this system.

b) Standard Users

Standard user is users that have limited access to the system. They standard user includes:

Teachers

Teachers are standard user that can use the system to produce the grade book, update their class information, and enter the marks and so on. Teacher can gain the password from the administrator before use the system. Once the teacher is transfer to other school the administrator will block the access.

Parents

Parents also is a standard user, however this user only can view the result based on their child identification number.

3.3.3 Hardware And Software Requirement

This is important part to determine which can make the process of developing the project work smoothly. It also to make sure that the user requirement can be implementing.

a) Server

This is the hardware requirement for server. In order to make sure that SMK DAR e-result system can be access and use with effectiveness.

For the information, SMK DAR has their own server. This system will be put in that server for easy maintenance later on.

No	Hardware and Software	Specification
1	Processor	Intel Pentium 4, 2.8 GHz
2	Memory	256 MB DDR
3	Hard Disk Drive	80 GB
4	Operation System	Windows 2000

Table 3.3.3.1: List Of Hardware and Software Of Server

b) Client

No	Hardware and Software	Specification
1	Processor	Intel Pentium 4, 2.8 GHz
2	Memory	256 MB DDR
3	Hard Disk Drive	40 GB
4	Internet access	

Table 3.3.3.2: List of Hardware and Software of Client

3.4.2 Software

Below are the detail descriptions of software used in this project:

a. Microsoft Windows XP Professional 2

Microsoft Windows XP is the operating system that acts as platform for developing this project.

b. Apache 2.0.55

Apache is used as web server for this project. It is open-source software and being widely used by all system developers. It is free software and that can be downloaded from its main website (<http://www.apache.org>) and can be used at many platforms such as UNIX, Windows and Novell Netware and others.

c. MySQL

MySQL is used as database to store all the data for this project. It is an open source relational database management system (RDBMS) that uses Structured Query Language (SQL), the most popular language for adding, accessing, and processing data in a database. MySQL is noted mainly for its speed, reliability, and flexibility.

d. Hypertext Preprocessor (PHP 5)

PHP has been chooses as the programming language in developing this project. PHP is open-source software and can be download at its main website (<http://www.php.net/>). It is used to develop server side application or any dynamic web application.

e. Macromedia Dreamweaver 8 2007

Macromedia Dreamweaver was choosing as the web authoring to develop and design all the interfaces for this project

f. Adobe Photoshop CS2

Photoshop is used as graphic editing to edit all the images in this project.

g. Mozilla Firefox

Mozilla is used as browser in developing this project.

3.4 Phase 3: Systems Design

This phase focus on designing the user interfaces and identifies all the necessary outputs, inputs and processes. There are two types of design which is logical design and physical design.

3.4.1 Logical Design

The logical design defines the functions and features of the project and the relationship among its components. It includes the output that must be produced by the system, the input needed and the process that must be be performed by the project.

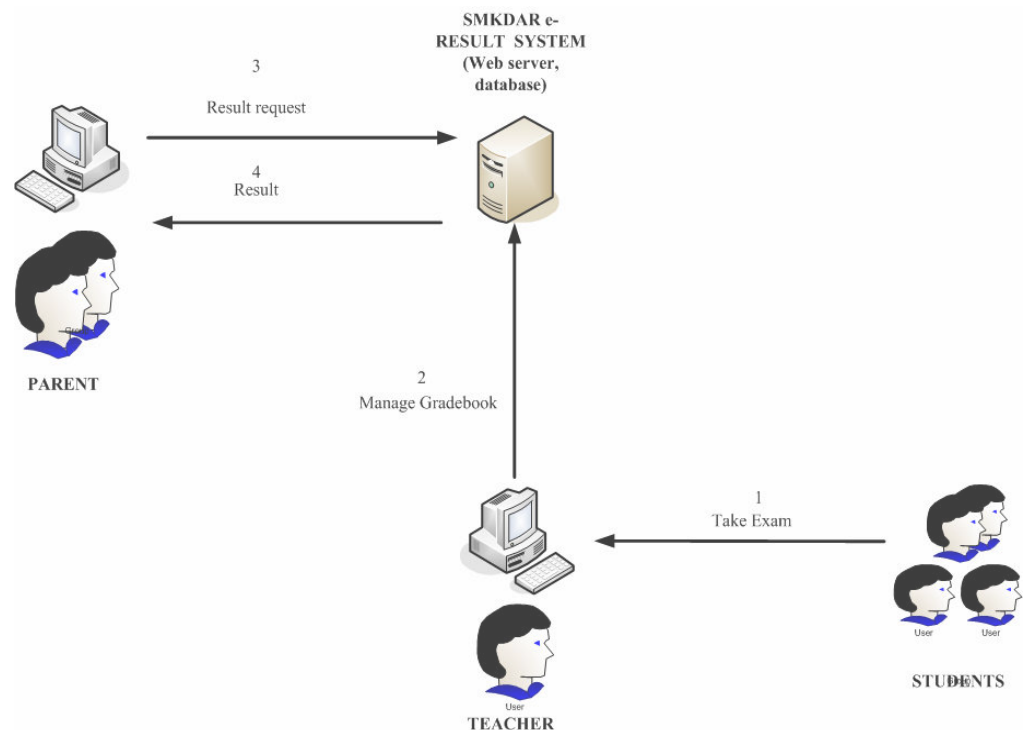


Figure 3.4.1: System Archicecture

3.4.2 Physical Design

The physical design focus on specific implementation of the system. The physical design describe the process of entering, verifying and storing the data, the physical layout of data files and so on. At this phase all the Entity relationship are designed.

Figure 3.4.2.1: Relationship of the database

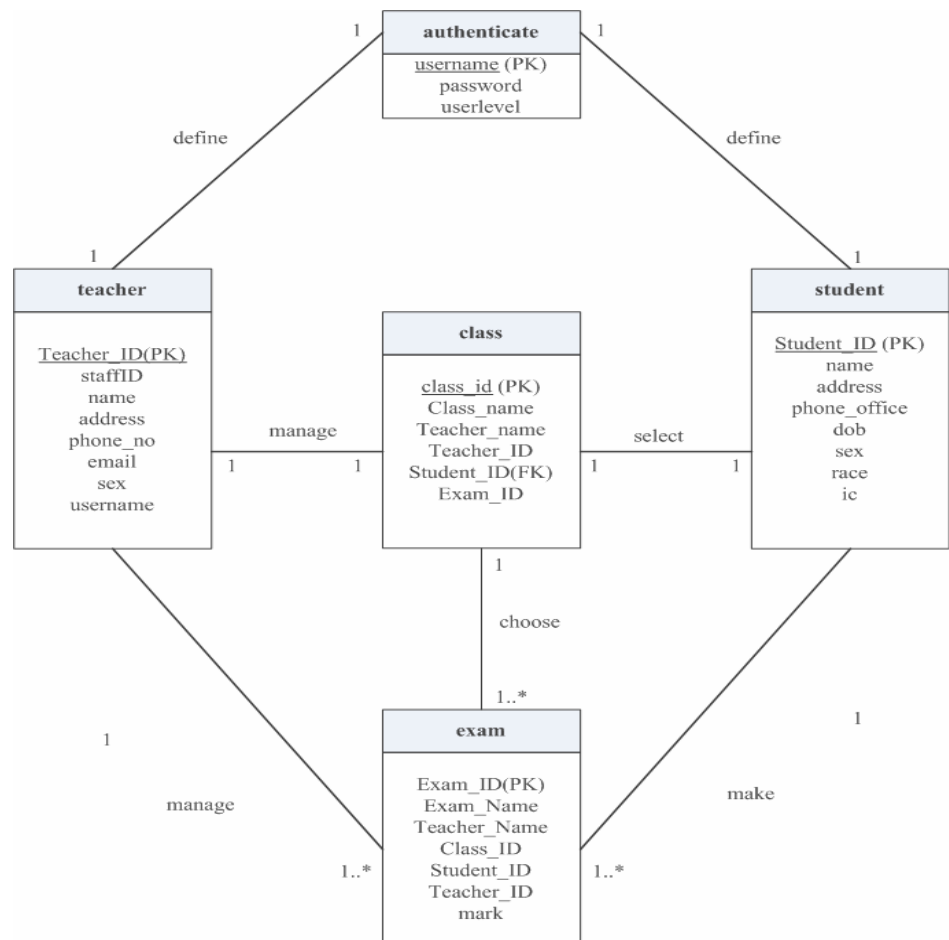
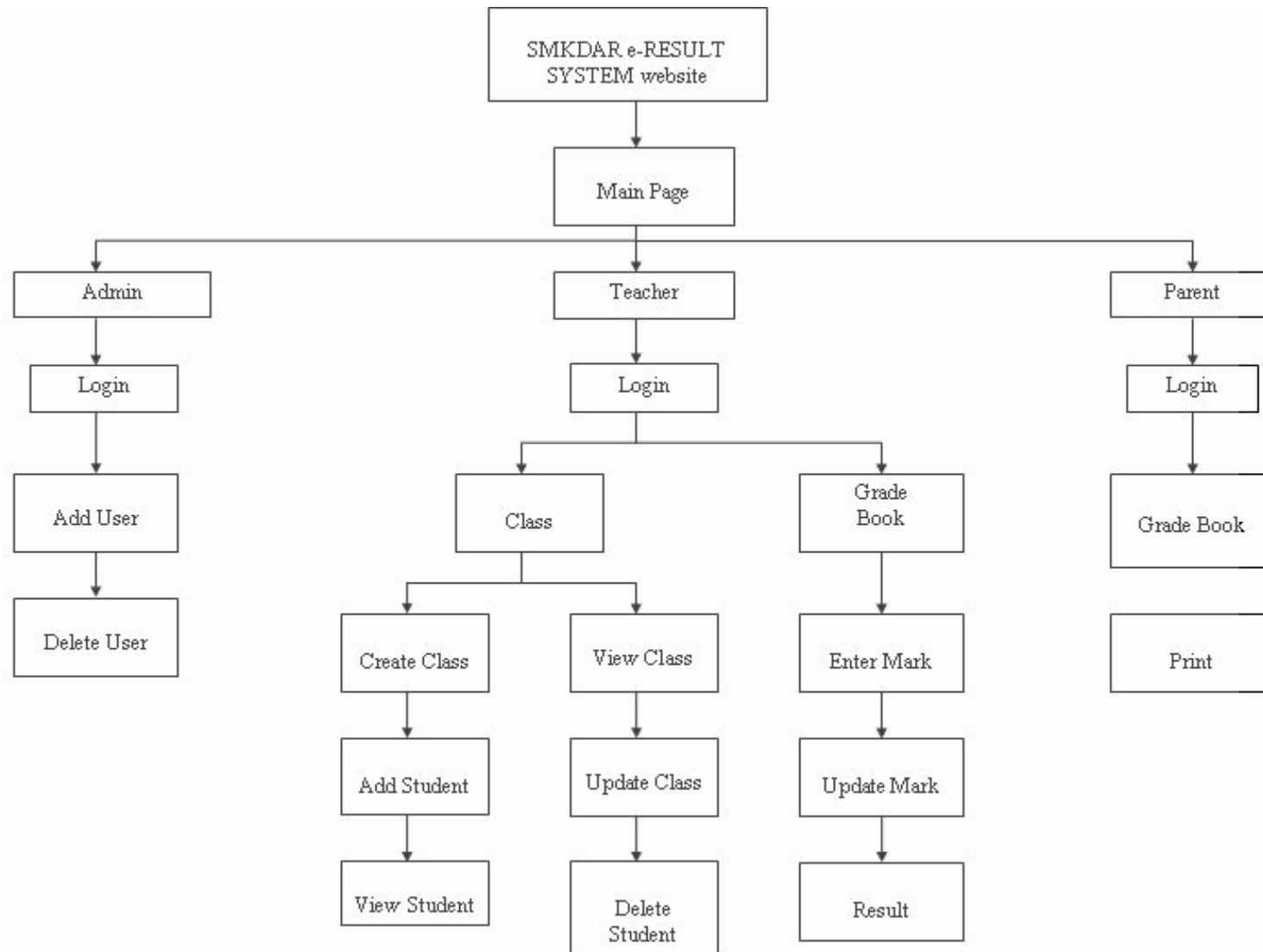


Figure 3.4.2.2: Menu Hierarchy Narrative of System



3.5 System Implementation

During this phase, the new system is constructed. The complete system will implement at SMK DAR server. The objective of this phase is to deliver a completely functioning and documented information system. At this phase the system is ready to use by teachers at SMK DAR. Final preparations including training user the teachers at SMK DAR on how to use the system and performing the actual transition to the system. This phase also includes an assessment, called a systems evaluation, to determine whether the system operates properly or not.

3.6 System Operation and Support

This is the last phase of SDLC, during this phase the system developer needs to maintain and enhance the system. In this phase also involve maintenance changes correct errors of the system that detect at the phase before and adapt the changes to the system. The support is including provide new features and enhance the system in future if the teachers needed to. Beside that, the developer also provides the maintenance to the system.

3.7 Summary

This chapter explained about all the steps taken in each methodology. It show what is needed in order to complete this project, what is the process involved and how it can be done. It provides information about the methods used in gathering data and information as guidance for development of the SMK DAR e-Result System.

CHAPTER 4

RESULTS AND FINDING

4.1 Introduction

This chapter will explain about the implementation and findings of the development of the SMK DAR e-Result system. It will focus on the how the system process the data and highlights the findings or result from the process.

4.2 System Interface

4.2.1 E-Result System

This is the main page of this system. There are two type user of this page. An administrator or teacher. Login is required to access this page. Login interface as below:



Figure 4.2.1: Main Page

4.2.1.1 Administrator

The admin have the authority to add the user based on their name and id. Only the user that registered by admin allow to access this page. This is for security purpose. The admin page is shown below. Admin also can delete the user once they are not working at SMK DAR anymore.



The screenshot shows the Admin Login page. The header is purple with 'ADMIN PAGE' on the left and 'SMKDAR e-RESULT SYSTEM' on the right. The main content area is white and contains a white box titled 'Admin Login'. Inside this box, there are two input fields: 'Username' and 'Password'. Below these fields are two buttons: 'Submit' and 'Reset'.

Figure 4.2.1.1.1: Admin Login



The screenshot shows the Admin Add User page. The header is purple with 'ADMIN PAGE' on the left and 'SMKDAR e-RESULT SYSTEM' on the right. The left sidebar is purple and contains a menu titled '::Admin Menu::' with options: 'Add User', 'View User', 'Change Password', 'Logout', and 'Home'. The 'Add User' option is highlighted. Below the menu is a calendar for 'October 2007'. The main content area is white and contains a white box titled 'Add User'. Inside this box, there are three input fields: 'Username', 'Password', and 'Name'. Below these fields is a 'Submit' button.

Figure 4.2.1.1.2: Admin Add User

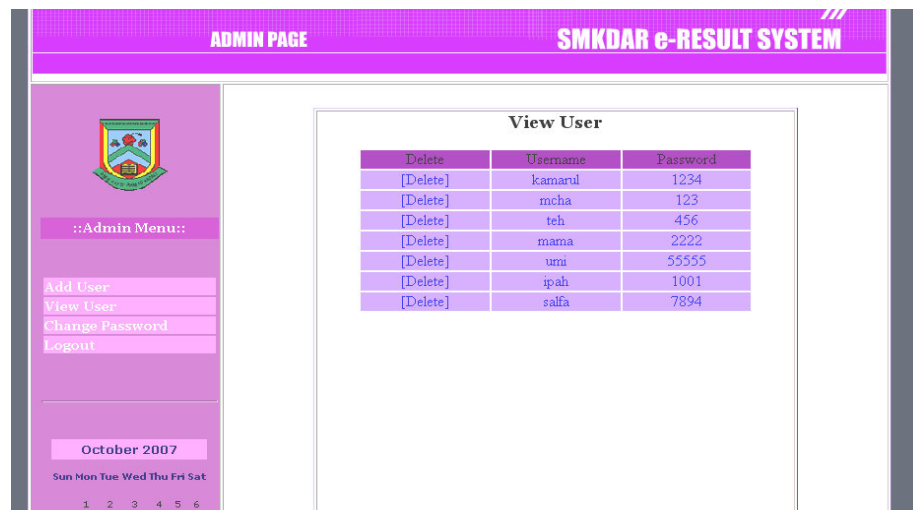


Figure 4.2.1.1.3: Admin View User

4.2.2.2 Teacher

Teacher can divide into two. One is a teacher class. This teacher can create class, add student to class, and process the grade book. While the other one is subject teacher. This teacher only can add mark to subject that they teach.



Figure 4.2.2.2.1: Teacher Page

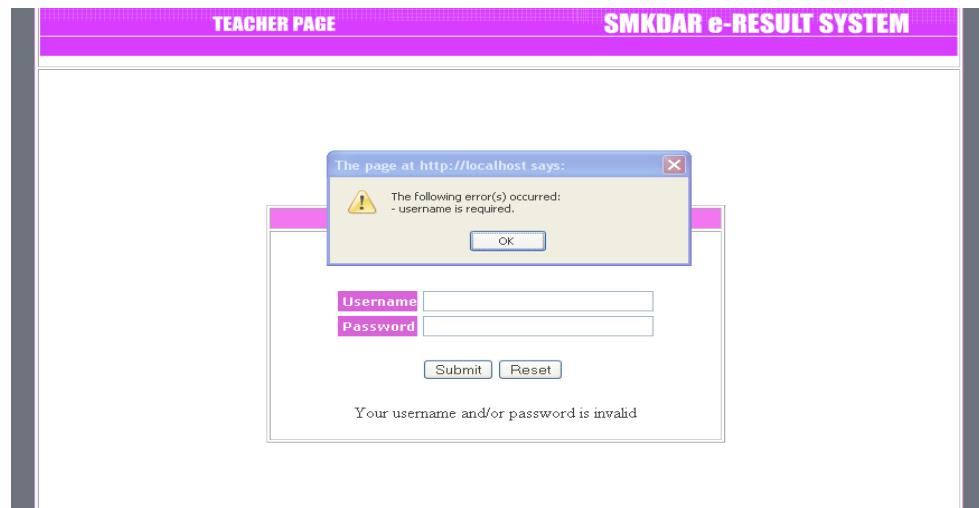


Figure 4.2.2.2.2: Teacher Login

1. Teacher Profile

This page allow teacher to register their information into this system. Even though the admin already registered for them, the admin only registered their name and the id only, the other information need to be filling up by the teacher.

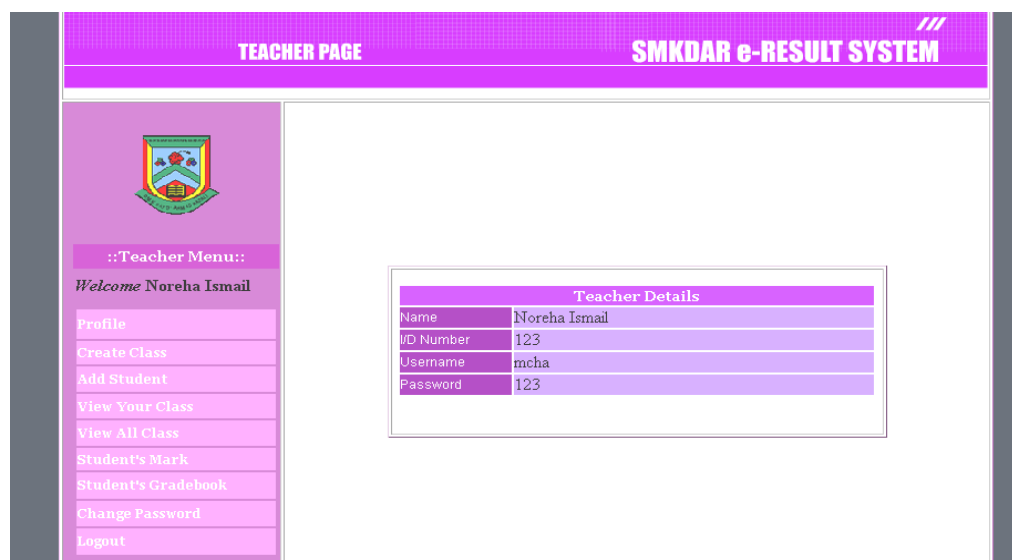


Figure 4.2.2.2.3 : Teacher information

The screenshot displays the 'TEACHER PAGE' of the 'SMKDAR e-RESULT SYSTEM'. On the left is a sidebar with a school crest and a menu titled '::Teacher Menu::' containing options like 'Update Profile', 'Create Class', 'Add Student', 'View Your Class', 'View All Class', 'Student's Mark', 'Student's Gradebook', 'Change Password', 'Home', and 'Logout'. The main content area shows a 'Create Class' form with the following fields:

Create Class	
Teacher Name	Noreha Ismail
Form	1 Jujur
Year	2011
<input type="button" value="Add"/>	

Figure 4.2.2.2.4:Create class form

2. Class

The first main process is creating class. The purpose of this process is to create a record call class. This class contains students where he grade book is producing based on their exam result. During this process teacher are required to full fill the information needed. This process only can be completed by class teacher. The responsibility as the class teacher is defined by Guru Penolong Kanan.. The information needed is form, class name, class teacher and year. Once class teacher created the class, the teacher can view, edit, and delete the class.

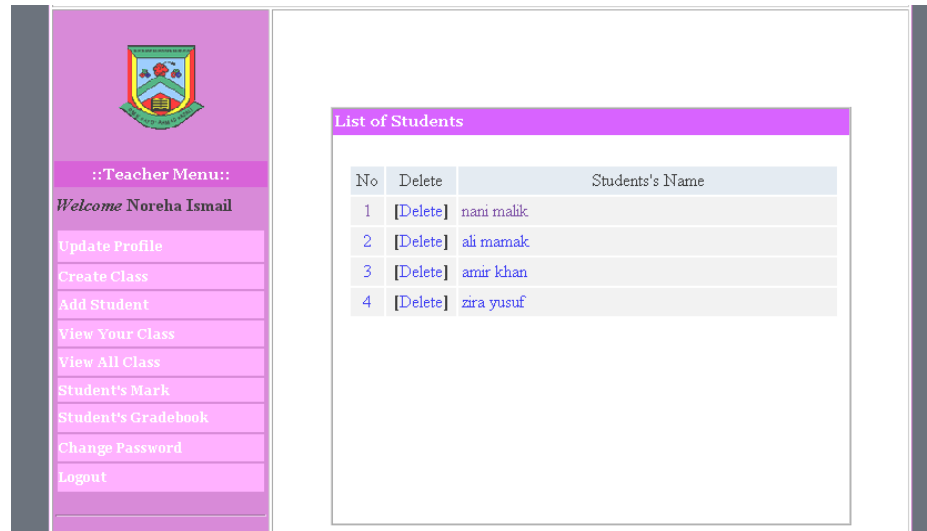


Figure 4.2.2.2.5 : view class

3. Student


Once the class is created, class teacher need to add the students. Students distributed into class based on their exam result. For example, form one students being evaluated based on their UPSR exam result while form four students based on their PMR exam result. Once the class teacher gets the student list for her/his class, students' record entered to the system. The information needed is students' name and id number. Once the class complete, the teacher can view the class, edit or update, delete the students or print the class list. This is the mandatory field that needs to be filling because the grade book is based on the students' name and id number to differentiate each other. Maximum students in each class are 40 students. From this data other teacher can use to enter mark later on and to produce the grade book. The form as below:



Figure 4.2.2.2.6 : view student

4. Mark

After completing all the record, subject teacher can easily add mark to their students record. Using this system, class teacher no need to ask and wait the mark from subject teacher anymore. Everybody has their own task. Once the subject teacher completes marking the paper, they can easily enter their students marks from any places. To add the mark into students record, teacher need to fill the form that required which class they want to enter, exam name, subject and teachers name. Once the form is completed teachers can enter the mark. Teacher also can view the whole records, edit or update the mark, delete and print. The figure shows the form.



::Teacher Menu::


Welcome Noreha Ismail

- Update Profile
- Create Class
- Add Student
- View Your Class
- View All Class
- Student's Mark
- Student's Gradebook
- Change Password
- Logout

Create Exam

Teacher Name	Noreha Ismail
Class Name	Current <input type="button" value="v"/>
Exam	Select Exam <input type="button" value="v"/>
Subject	Select Subject <input type="button" value="v"/>

Figure 4.2.2.2.7: To Enter Mark



::Teacher Menu:::

Welcome Noreha Ismail

- Update Profile
- Create Class
- Add Student
- View Your Class
- View All Class
- Student's Mark
- Student's Gradebook
- Change Password
- Home
- Logout

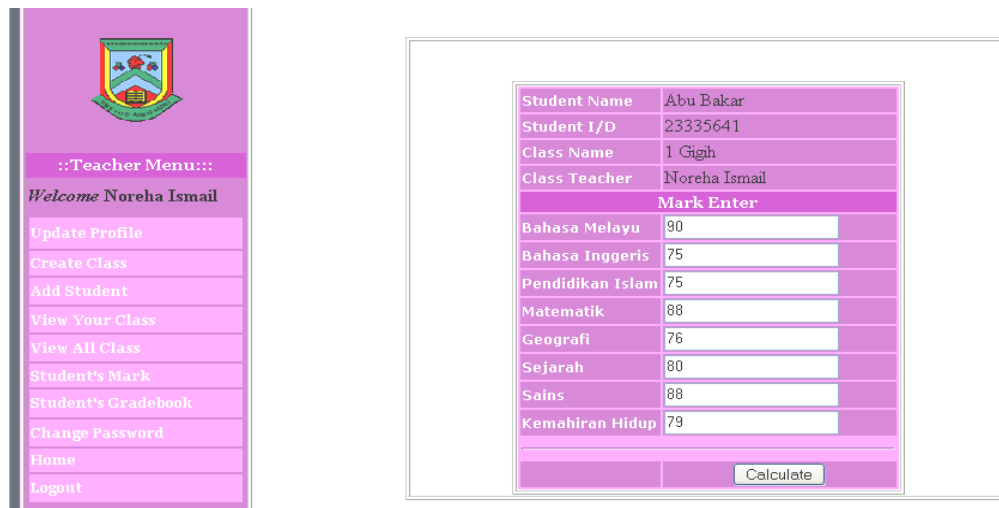
Add Mark

Teacher Name	Noreha Ismail
Class Name	1 Gigih
Exam	
Subject	

List of Students

No	Students Name	Students I/D	Marks
1	nani malik	1414	[Enter Mark]
2	ali mamak	1313	[Enter Mark]
3	amir khan	2525	[Enter Mark]
4	zira yusuf	5151	[Enter Mark]

Figure 4.2.2.2.7: Enter Mark



The image shows two parts of a web application. On the left is a 'Teacher Menu' sidebar with a purple header and a list of options. On the right is a 'Mark Enter' form for a specific student, featuring a table with subjects and input fields for marks, and a 'Calculate' button at the bottom.

Teacher Menu:

- Update Profile
- Create Class
- Add Student
- View Your Class
- View All Class
- Student's Mark
- Student's Gradebook
- Change Password
- Home
- Logout

Mark Enter Form:

Student Name	Abu Bakar
Student I/D	23335641
Class Name	1 Gigh
Class Teacher	Noreha Ismail
Mark Enter	
Bahasa Melayu	<input type="text" value="90"/>
Bahasa Inggeris	<input type="text" value="75"/>
Pendidikan Islam	<input type="text" value="75"/>
Matematik	<input type="text" value="88"/>
Geografi	<input type="text" value="76"/>
Sejarah	<input type="text" value="80"/>
Sains	<input type="text" value="88"/>
Kemahiran Hidup	<input type="text" value="79"/>
<input type="button" value="Calculate"/>	

Figure 4.2.2.2.8: Student Enter Mark

The Process of Calculation result

This is the main process of this system, this section will calculate the total mark which is sum of all mark of subject that taken by students. All the mark is from the record that entered by subject teacher. From the total mark we can determined the class rank. The highest total mark will be in the first rank and so on. This will calculate for each exam. Only class teacher can perform this task.

Display the Result

After completing the calculation process, teacher can view students result. Result can be view by class, by student, by exam name or view the class rank (highest to the lowest), highest mark for each

subject. This school has five exams per year. Teacher can view by the whole exam or can choose which exam they want to view. Teacher can print the result from here. The result figure:


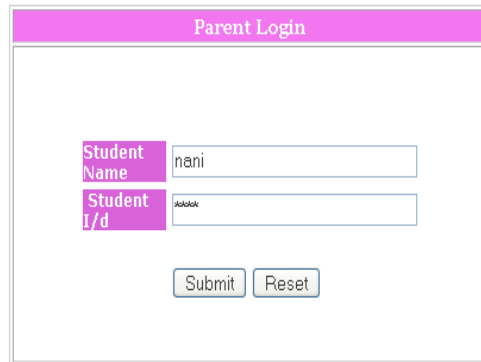
 <p>Teacher Menu:::</p> <p>Teacher Noreha Ismail</p> <p>Profile</p> <p>Class</p> <p>Student</p> <p>Our Class</p> <p>Class</p> <p>Teacher's Mark</p> <p>Teacher's Gradebook</p> <p>Password</p>	<p>Student Name: Salfarizan Salleh</p> <p>Student Id : 930919078976</p> <p>Class: 2 Ggih</p> <p>Year: 2007</p>	
	Subject	Mark
	Bahasa Melayu	80
	Bahasa Inggenis	70
	Matematik	89
	Sains	80
	Geografi	85
	Sejarah	89
	Agama Islam	90
	Kemahiran Hidup	78
Total Mark		661/800
Class Rank		2/30
Teachers Comment:		Congratulations.

Figure 4.2.2.2.9: Result

4.2.3 Result

This is the page where parents can view their child result by browse this system from the internet. Parent need to enter their child name and id number only. They can view the result and print the result. Parents also can choose either want to view the entire exam or choose the exam they want to view. The interface for parent looks like this:



The image shows a web form titled "Parent Login". It contains two input fields: "Student Name" with the value "nani" and "Student I/d" with the value "jebek". Below the input fields are two buttons: "Submit" and "Reset".

Figure 4.2.3.1: Parent Login

Student Name: Salfarizan Salleh Student Id : 930919078976 Class: 2 Ggih Year: 2007		
Subject	Mark	Grade
Bahasa Melayu	80	A
Bahasa Inggeris	70	B
Matematik	89	A
Sains	80	A
Geografi	85	A
Sejarah	89	A
Agama Islam	90	A
Kemahiran Hidup	78	B
Total Mark	661/800	
Class Rank	2/30	
Teachers Comment:	Congratulations.	

Figure 4.2.3.2: Parent View Result

4.3 Analysis of Finding.

Once this system is completed it has been testing at SMK DAR, a few teachers has been tested the system. Based on the questionnaire that distributed most of them are satisfied with the interface and the output. The flow process of this system also can reduce the time. So teacher can save their time and the task can be completed in a short time compared to the manually process. The questionnaire can be seen at the appendix.

From the 20 respondents, the results of questionnaires are:

1. Do you satisfy with the interface of the system?
80% of respondents satisfied while the rest are not satisfied
2. This system can save your time?
All the respondents said that this can save the time compared to the manual process.
3. Does the system easy to use?
75% agree that this system is easy to use while the rest said the instruction given is a not enough to them
4. Does the system give an accurate result?
100% respondents agree that the system give the accurate result.
5. Do you agree if this system implement at this school?
100% of respondents agree to implement the system at this school

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

The first objective of this project to design and develop a web based system for teachers to produce student's grade book. Before this they use the manual calculation to calculate the marks and produce the grade book. This is taking so much times and sometimes creates mistakes. Using this system also parents can view their child result via website even they are so busy. To compare whether the system is fully achieve the user requirement the testing has been done and the questionnaire was distribute to 20 teachers. To complete this system, SDLC (System Development Life Cycle) was used. There are five phase that helped in developing in this system.

5.2 Conclusion

As a conclusion, this system is successfully achieved the objective and it gives a lot of benefits to the school generally and for the teachers especially. This system enables the teachers produce grade book in a faster way and accurately. There is no more burden for teachers in calculation the marks and producing the grade book. No mater where are they, they still can do their task. No more complaining that they have to be in school during the school holiday. So do the parents, even they are so busy with works, they still can

concern about their child performances in exam by monitor their result via the website. Obviously this system gives a lot of benefits to this community.

5.3 Recommendation

The recommendation and suggestion that could be made for the future work is

enhance the system in order to view the result. Parent can receive their child result via SMS. This can be easier to parents. In fact most of the people today have a mobile phone. This can be more convenience way for parent to check their child result. With SMS everything is in your fingertips.

REFERENCES

Andy Striemer ,(2001)*Network Gradebook: A customizable solution for schools and teachers* Retrieved on February 20, 2007 from
http://iisme.org/etp/Network_Gradebook.pdf

iParadigms, LLC ,*GradeBook; Turnitin's Online Grading Solution*
Retrieved on February 20, 2007 from
http://www.northumbrialearning.co.uk/documents/elect_detection/GradeBook.pdf

Jay Klein Productions, (2006) *Making the Grade: Teacher Grade Book Software*
Retrieved on March 15, 2007 from (http://www.cri-mms.com/making_the_grade.asp)

Paper Trail Software, (2000) *Home of Grade Point Grading program for Teachers*
Retrieved on March 10, 2007 from
<http://www.papertrailsoftware.com>)

San Marcos Elementary Teacher's Guide, (2006)*D2SC Gradebook System*
Retrieved on March 10, 2007 from
<http://www.smcisd.net/pdf/otl/Elementary%20Training%20Guide%2006-07.pdf#>

Shelly Cashman Rosenblatt, Thomson Course Technology (2003)
Systems Analysis and Design

Todd Mildon, (2006)*Web Grade Book and Web Grade Collection*
Retrieved on February 20, 2007 from

(<http://www.washington.edu/president/tacs/atac/meetings/2005-06/materials/03.13.web.grade.book.and.collection.pdf>)

Towson University, (2005) *Microsoft Excel Grade Book; Calculate Student Grades With Ease*, Retrieved on February 20, 2007 from
(<http://www1.towson.edu/adminfinance/OTS/training/documentation/Excel>)

University of Chicago, (2006) *Basic Gradebook Features in Chalk*
Retrieved on February 20, 2007 from
(<http://nsit.uchicago.edu/academic/support/chalk/pdf/gradebook1.pdf>)

University Of West England, (2006) *The Gradebook*
Retrieved on February 20, 2007 from
(<http://info.uwe.ac.uk/online/blackboard/students/guides/gradebook.asp>)

WebCT, *Posting Grades in the WebCT Grade Book*
Retrieved on February 25, 2007 from
(<http://etatmo.missouri.edu/toolbox/doonline/WebCTGradeBook.pdf>)

Wikipedia, (2006) *Php*
Retrieved on March 17, 2007 from (<http://en.wikipedia.org/wiki/Php>)

Wikipedia, (2006) *Apache Server* Retrieved on March 17, 2007 from
(http://en.wikipedia.org/wiki/Apache_server)

Webopedia, (2006) *MySQL*

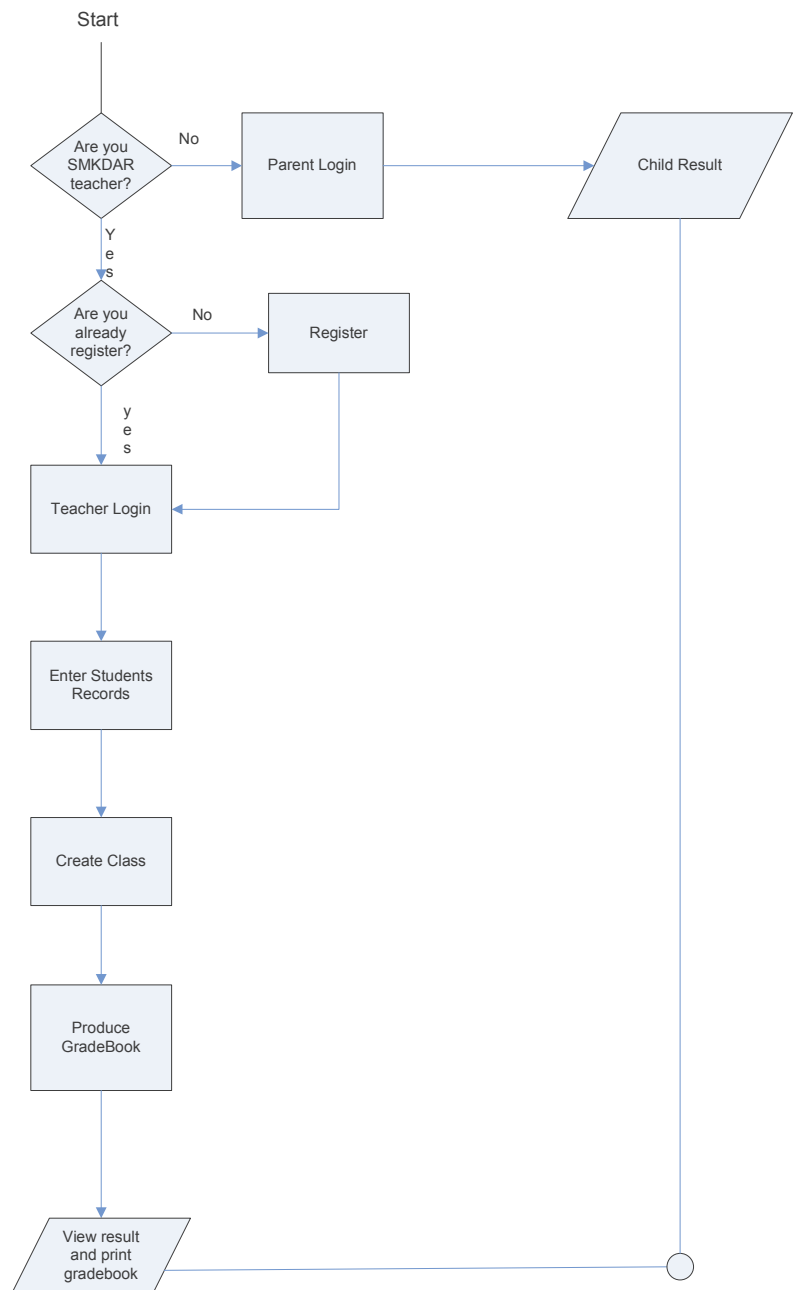
Retrieved on April 3, 2007 from

(<http://www.webopedia.com/TERM/M/MySQL.html>)

*(2006) **Grade Book** Retrieved on April 3, 2007 from*

(http://library.blackboard.com/docs/r6/6_1/instructor/bbbs_r6_1_instructor/gradebook.htm<http://courselink.uoguelph.ca/ce6courselink/tools/gradebook/gradebook.html><http://www.webassign.net/pas/gradebook/gradebook.html>)

APPENDIX A : FLOW CHART



APPENDIX B : ERD

