

**SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM
(E-SOMS)**

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM (E-SOMS)

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

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DECLARATION

I hereby declare that this project report entitled

SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM (E-SOMS)

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

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DEDICATION

Bismillahirrahmanirrahim,

Finally this report is done!

Thanks to all supporters especially to my lovely parents, En. Hamazulan bin Jamaludin and Pn. Kamariah binti Ghazali. I Love You Mom and Dad!!

To my supervisor, Pn Zarita binti Mohd Kosnin, thanks for always give me an advice.

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ABSTRACT

SMK SAAS Online Student Management System (E-SOMS) is the system which will implemented to make the student data are store in efficiently method. This system also will implemented to make the students, teachers and parents are easier to interact with the school. Other than that, this system will make the data more secured in order to manage the data. This system provides the modules to the teacher to record their student results in easier method and the students, parents and admin can check the results automatically after teacher record the results details. This system may contribute many benefit to the user in daily routine life.

ABSTRAK

SMK Saas Online Sistem Pengurusan Pelajar (E-SOMS) adalah sistem yang akan dibina untuk membuat data pelajar disimpan dalam kaedah cekap. Sistem ini juga akan dilaksanakan untuk menjadikan pelajar, guru dan ibu bapa lebih mudah untuk berinteraksi dengan sekolah. Selain itu, sistem ini akan membuat data lebih selamat untuk disimpan. Sistem ini menyediakan modul untuk guru mencatatkan keputusan pelajar mereka dalam kaedah yang lebih mudah dan para pelajar, ibu bapa dan pentadbir boleh menyemak keputusan secara automatik selepas rekod keputusan dimasukkan. Sistem ini boleh menyumbang banyak manfaat kepada pengguna dalam kehidupan seharian.

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	DECLARATION	i
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLE	xi
	LIST OF FIGURES	xiii
	LIST OF ABBREVIATION	xv
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
	1.2 Problem Statements	2
	1.3 Objectives	3
	1.4 Scopes	4
	1.5 Project Significance	7
	1.6 Expected Output	7
	1.7 Conclusions	8
CHAPTER II	LITERATURE REVIEW AND PROJECT METHODOLOGY	
	2.1 Introduction	9
	2.2 Facts and Findings	10
	2.2.1 Domain	10

	2.2.2 Existing System	10
	2.2.3 Summary Of Case Study	13
2.3	Techniques	13
2.4	Project Methodology	14
	2.4.1 Database Life Cycle Model (DBLC)	15
	2.4.2 Software Development Life Cycle (SDLC)	17
2.5	Project Requirement	19
	2.5.1 Software Requirement	20
	2.5.2 Hardware Requirement	20
	2.5.3 Other Requirement	21
2.6	Project Schedule and Milestone	26
2.7	Conclusion	23
CHAPTER	ANALYSIS	
III		
	3.1 Introduction	24
	3.2 Problem Analysis	24
	3.2.1 Manual System	25
	3.3 Requirement Analysis	27
	3.3.1 Data Requirement	27
	3.3.2 Functional Requirement	33
	3.3.3 Non- Functional Requirement	34
	3.4 Conclusion	34
CHAPTER IV	DESIGN	
	4.1 Introduction	36
	4.2 High-Level Design	36
	4.2.1 System Architecture	37
	4.2.2 User Interface Design	37
	4.2.3 Conceptual and Logical Database Design	40
	4.3 System Architecture	44

4.3.1	Software Design	44
4.3.2	Physical Database Design	44
4.4	Conclusion	47
CHAPTER V IMPLEMENTATION		
5.1	Introduction	48
5.2	Software Development Environment Setup	48
5.2.1	Database Environment Setup	50
5.3	Database Implementation	52
5.3.1	SQL SELECT	52
5.3.2	Join From Multiple	53
5.3.3	SUB-QUERY	54
5.4	Software Configuration Management	54
5.4.1	Configuration Environment Setup	54
5.4.2	Version Control Procedure	55
5.5	Implementation Status	55
5.6	Conclusion	57
CHAPTER VI TESTING		
6.1	Introduction	58
6.2	Test Plan	58
6.2.1	Test Organization	59
6.2.2	Test Environment	60
6.2.3	Test Schedule	60
6.3	Test Strategy	61
6.3.1	Classes of Test	62
6.4	Test Design	63
6.4.1	Test Description	63
6.4.2	Test Data	66
6.5	Test Result and Analysis	67

	6.6	Conclusions	68
CHAPTER VII		PROJECT CONCLUSION	
	7.1	Introduction	69
	7.2	Observation On Strength and Weaknesses	
		7.2.1 System Strength	69
		7.2.2 System weaknesses	70
			70
	7.3	Proposition for Improvements	71
	7.4	Conclusion	71
		REFERENCES	72
		BIBLIOGRAPHY	73

LIST OF TABLES

TABLE	TITLE	PAGE
Table 2.1	Software Requirements for E-SOMS	20
Table 2.2	Project Schedule and Milestone	21
Table 3.2	Data Requirement for Admin	27
Table 3.3	Data Requirement for Student	27
Table 3.4	Data Requirement for Teachers	28
Table 3.5	Data Requirement for Parents	29
Table 3.6	Data Requirement for Fee	30
Table 3.7	Data Requirement for Class Time Table	30
Table 3.8	Data Requirement for Teachers Time Table	31
Table 3.9	Data Requirement for Result	31
Table 4.1	Input design for each module	39
Table 4.2	The description about the DBMS Selection	43
Table 4.3	DDL statement for E-SOMS	45
Table 5.1	Version Control Procedure for E-SOMS	55
Table 5.2	Login	56
Table 5.3	Registration	56
Table 5.4	Payment	56
Table 5.5	Timetable	56
Table 5.6	Result	57
Table 6.1	Hardware and Software Environment	60
Table 6.2	Test Scheduled for E-SOMS	61
Table 6.3	Classes of Test in E-SOMS	62
Table 6.4	Test case, description, testing type and expected result	63

	for login module.	
Table 6.5	Test case, description, testing type and expected result for registration module.	64
Table 6.6	Test case, description, testing type and expected result for payment module.	64
Table 6.7	Test case, description, testing type and expected result for upload and download module.	65
Table 6.8	Test case, description, testing type and expected result for backup and restore module	66
Table 6.9	Test case, description, testing type and expected result for generate report module	64
Table 6.10	Test data for administrator login	67
Table 6.11	Test result and analysis for E-SOMS	68

LIST OF FIGURES

FIGURE	TITLE	PAGE
Figure 2.1	Kigali International School Management System	11
Figure 2.2	Dibus School Management System	12
Figure 2.3	The Database Life Cycle Model (DBLC)	15
Figure 2.4	Software Development Life Cycle Model (SDLC)	17
Figure 3.1	Context Diagram for Manual Student Management System	25
Figure 3.2	Data Flow Diagram (DFD) for Manual Student Management System	26
Figure 3.3	Data Flow Diagram Level 1 for Fee Payment Module	33
Figure 3.4	Data Flow Diagram Level 1 for Registration Module	25
Figure 3.5	Data Flow Diagram Level 1 for Student Exam Result Module	25
Figure 3.6	Context Diagram for SMK SAAS Online Student Management System	32
Figure 4.1	Component View of the Architecture E-SOMS	37
Figure 4.2	Navigational Design for SMK SAAS Online Student Management System	38
Figure 4.3	ERD for SMK SAAS Online Student Management System	41
Figure 5.1	Software Development Setup	49
Figure 5.2	Log In as Admin	50
Figure 5.3	Start the Database	51

Figure 5.4	Statement to select table PARENTS	52
Figure 5.5	Statement to select multiple tables	53
Figure 5.6	Sub-query statement	54
Figure 6.1	Test Organization Diagram for E-SOMS	59

LIST OF ABBREVIATIONS

UTeM	Universiti Teknikal Malaysia Melaka
DBLC	Database Life Cycle
DBMS	Database Management System
E-SOMS	SMK SAAS Online Student Management System
SDLC	Software Development Life Cycle
OS	Operating System

CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, managing school effectively and efficiently needs more attention. Hence, a system to manage student's academic records needs to be developed. This proposed system will be used in SMK Sultan Abdul Aziz Syah, Kajang. The school does not have an online system. It is using traditional filing methods to record its student's information. The school encountered some problems in using the manual methods. By using the manual methods, the data are hardly managed and organized.

E-SOMS system is going to store student's profiles like student's personal information and teacher's personal information. Besides that, this system also will be managing student's academic information like examination marks and student fee payment records. The student and teachers also can download their class time table.

Besides that, the school's administrator can track the student fees payment status. All the fees payment method will be recorded in the system database. The new

system will help them to monitor their students and keep track all the information or status that will be provided by this new system.

1.2 Problem Statement

a) Insecure

By using paper filing method, the data are easily accessed by unauthorized person. The file that contains student or staff information can be viewed easily by anybody including those who are not allowed to see that information.

b) The data are easily lost

The data are easily lost because the school staffs are using paper to store the information. The papers are lost due to misplaced or destroyed in a disaster like flood. If these happen, the data cannot be retrieved anymore.

c) Hard to query the data

By using the current system, it is also hard to find information. For example, the staff needs to search the name of the student one by one, to find a student's information. The task is not done efficiently and it can take time to find that information.

d) Hard to store and retrieve the students and teachers timetable

In this school, the timetable is posted on the bulletin board only. It is not an appropriate way to view the information to people because the time tables that are posted at the bulletin board may be torn or missing.

e) Hard to store student's results

Nowadays, teachers in this school need to records their students mark manually and to human error or environmental issues. Other than that, parents also are hard to check their children results. They need to wait until their children's teacher gives them a report card book to show them their children studies performance.

f) Hard to keep track the student fee status of payment

By using the manual method, the school administrator and teachers hard to find the student who did not pay the fee. They need to find one by one based on the fee receipt.

1.3 Objectives

a) To make data more secured

The make the data more secured by applying user authentication levels. This system will determine the access level for user which has four levels (Level 1: Administration, Level 2: Teacher, Level 3: Parents, Level 4: Students).

b) To provide backup to the system

Administrator can back up the data that have been record if any system failure happens.

c) To make the data easily retrieved

The system will ease the user to retrieve the information. It will provide the searching function to find specifically the information that they want to know.

d) To make the time table easily retrieved/viewed

The system will provide an upload and download time table function. This function may help the administrator to store and view the teachers and students time table. Other than that, teachers and students also will be easy to get and save their timetable. This function can make the system more efficient to use.

e) To make the student results easily to view and record

The system will provides the function where teachers can record their students mark and the students, parents and school administrator can check the result after teachers record the marks.

1.4 Scopes

To develop this project, a few scopes has to be difine. This system scope will be divided; into two the user scope and system scope. The scope of the system is as below:

1.4.1 User Scope

a) Administrator

- Have the privilege to access all system modules.
- Have the privilege to add, modify or delete the teacher's and student's profile.
- Responsible in making system backup.
- Responsible to upload student's and teacher's timetable.
- Have the privileges to view student's results.

b) Teachers

- Have the privilege to add, delete, update and view the student profile.
- Able to access and edit their profile.
- Able to view their time table.
- Responsible to record the student exam results.
- Responsible to manage the student details.
- Responsible to manage the student's fees payment.

c) Students

- Have the privilege to access their profile.
- Have the privilege to access their school exam result.
- Have the privilege to edit their profile.
- Have privileges to check their fee payment status.

d) Parents

- Have the privileges to view their children's examination result.

- Have the privileges to check the fee payment status.
- Have privileges to update their profile.

1.4.2 System Scopes

a) Registration Sub-System

This sub-system will allow the school administrator to register the new student and teachers. The school administrator will record all the information about the student and teacher. The data that have been record will automatically save into the database.

b) Fees Payment Sub-System

This sub-system will allow teachers and school administrator to record the fees payment made by the students.

c) Examination Result Sub-System

This sub-system will allow subject teachers to record their student's results. Student, parents and school administrator can view the result after the teachers record the student marks.

d) Class Timetable Sub-System

This sub-system will allow administrator to upload teachers and students timetable. After administrator upload the timetable to the web, teachers and student can download the timetable to make their own reference.

e) Backup Sub-System

This module let the administrator to make backup and recovery to avoid any data lost if any system failure happens.

1.5 Project Significance

The SMK Sultan Abdul Aziz Syah, Kajang Online Student Management System (E-SOMS) will be developed to upgrade the system that is currently used to manage students in SMK Sultan Abdul Aziz Syah (SMKSAAS). The aim of this system is to transform the current system that is using paper form into a computerized system. The computerized system will be a web based system where the student, teachers and school administrators can use the system online.

One of the major issues faced by the existing information system is data inconsistency or mismatch due to errors caused by multiple data entry involving multiple databases. The problem is totally eliminated with the use of a single database in E-SOMS.

1.6 Expected Output

It is expected that SMK Sultan Abdul Aziz Syah, Kajang Online Student Management System (E-SOMS) will facilitate the administrators and teachers in the management of their students. Other than that, it will be an effective mode of communication between teachers and parents. Parents will be able to know about their children school's performance. The system will be a user friendly system as to simplify the users to understand on how to use the system correctly.