SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM
(E-SOMS)

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JUDUL: SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM (E-SOMS)

SESU PENGAJIAN: 2010/2011

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SMK SAAS ONLINE STUDENT MANAGEMENT SYSTEM (E-SOMS)

NURUL HIDAYAH HAMAZULAN

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

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

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Bismillahirrahmanirrahim,

Finally this report is done!

Thanks to all supporters especially to my lovely parents, En. Hamzulan 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.

To my beloved friends ~ Muhammad Azuan, Nik Noraini, Noraida, Noor Izzati, Siti Maisarah and Nor Farhana, thanks for always give me strength in doing this project.

Thank you for always stay beside me!!
ACKNOWLEDGEMENT

“In the name of Allah, Most Gracious, Most Merciful”

Alhamdulillah, by the grace of Allah the Almighty I managed to complete this project successfully.

I would like to give a thousand of appreciation to all helping hands especially to my parents En. Hamazulan bin Jamaludin and Puan Kamariah binti Ghazali. Thank you for being my guardian angel throughout my studies.

My thousand of thanks are also dedicated to my supervisor, Puan Zarita binti Mohd Kosnin. Thank you for lending your ear to hear every problem that I faced and to all the advice and guidance. Without her, I would not complete my Bachelor’s project for the student of Bachelor of Information Technology Communication.

Other than that, I would also give my appreciation to all my lovely friends that have been helped me in completed this project either directly or not. Thank you so much for all of them who were involved in this project and their good deed will always remain in my memory forever.

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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 dinaikukkan. Sistem ini boleh menyumbang banyak manfaat kepada pengguna dalam kehidupan sehari.
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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
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 thom 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 define. 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 lets 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.