SCHOOL-BASED ASSESSMENT SYSTEM

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This report is submitted in partial fulfilment of the requirements for the
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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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JUDUL**:** **SCHOOL-BASED ASSESSMENT SYSTEM**

SESI PENGAJIAN**:** **SEMESTER 2014/2015**

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DEDICATION

Specially dedicated this report to my beloved parents, my supervisor, Yahya Bin Ibrahim and all my course mates for the help. Thanks for the invaluable support and guidance given throughout the completion of my Final Year Project (PSM).

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ABSTRACT

Final Year Project (PSM) is one of the pre-requisite subject that student is required to take before they can go to internship. It consists two parts of Final Year Project which is Final Year Project One and Final Year Project Two. Final Year Project One has been done before proceeding to Final Year Project Two. It contains the implementation of the propose system that is done throughout five consecutive month. Meanwhile, Final Year Project Two consists final report that is written to shows the compilation of activities done on the Final Year Project One. The project developed is called “School-based Assessment System”. The main purpose of this project is to computerized the current manual system to take the band for the student which is involve a lot of Microsoft Excel document into centralized web control. The process of developing the project is divided into four phases. First is the analysis of manual and existing system to determine the problem of design. Second, design of project, which is called as School-based Assessment System. Then, implement the project using Oracle database, PL/SQL, Java and Java Server Page (JSP) programming language. Last but not least, the project is tested.

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ABSTRAK

Projek Sarjana Muda (PSM) adalah salah satu mata pelajaran pra-syarat yang perlu di ambil oleh pelajar sebelum mereka boleh pergi ke Latihan Industri. Projek Sarjana Muda ini terdiri daripada dua bahagian iaitu Projek Sarjana Muda Satu dan Projek Sarjana Muda Dua. Projek Sarjana Muda Satu akan dilaksanakan terlebih dahulu sebelum Projek Sarjana Muda Dua. Projek Sarjana Muda Satu mengandungi pelaksanaan sistem yang dicadangkan yang pembangunannya mengambil masa selama lima bulan. Manakala, Projek Sarjana Muda Dua pula terdiri daripada laporan akhir yang ditulis untuk menunjukkan segala aktiviti yang terkandung dalam pelaksanaan Projek Sarjana Muda Dua Satu. Projek yang dibangunkan dikenali sebagai "Sistem Pentaksiran Berasaskan Sekolah". Tujuan utama projek ini adalah untuk mengubah sistem manual yang sedia ada, dalam mencatat tahap untuk pelajar yang melibatkan penggunaan dokumen Microsoft Excel kepada sistem berkomputer. Proses membangunkan projek ini dibahagikan kepada empat fasa. Pertama adalah analisis manual dan sistem yang sedia ada untuk menentukan masalah reka bentuk. Kedua, reka bentuk projek, yang dipanggil sebagai Sistem Penilaian berasaskan Sekolah. Kemudian, melaksanakan projek dengan menggunakan pangkalan data Oracle, PL / SQL, Java dan bahasa pengaturcaraan Java Server Page (JSP). Akhir sekali, projek ini diuji.

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LIST OF TABLES

TABLE	TITLE	PAGE
3.1	Example Data of Institution Table	20
3.2	Example Data of Subject Table	20
3.3	Example Data of Teacher Table	21
3.4	Example Data of Year Table	21
3.5	Example Data of Student Table	22
3.6	Example Data of Class Table	22
3.7	Example Data of Student_Class Table	23
3.8	Example Data of Teacher_Class Table	23
3.9	Example Data of Teacher_Class_Subject Table	24
3.10	Example Data of Band Table	24
3.11	Example Data of Sub_Field Table	25
3.12	Example Data of OverallBand Table	25
3.13	Example Data of Student_Subject_OverallBand Table	26
3.14	Example Data of Exam Table	26
3.15	Example Data of Student_Subject_Exam Table	27
3.16	Example Data of Field Table	27

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3.17	**Example Data of Student_Subject_Field Table**	**28**
4.1	**Criteria for Field "Geometri Dan Sukatan"**	**47**
4.2	**Criteria for Field "Nombor Dan Operasi"**	**47**
4.3	**Criteria for Field "Statistik Dan Kebarangkalian"**	**47**
4.4	**Description of Overall band for Mathematics**	**48**

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LIST OF FIGURES

DIAGRAM	TITLE	PAGE
2.1	Flowchart for Current Practice for Evaluate Student	6
2.2	Example of School-based Assessment Book	7
2.3	Excel Document for Subject Pendidikan Islam Year 4	8
2.4	Field and Subfield for Subject Pendidikan Islam Year 4	8
2.5	Individual Report for Subject Pendidikan Islam Year 4	9
2.6	Evaluation Form of Pendidikan Islam Year 4	10
2.7	Student's Selection Form	11
2.8	Full Report for Subject Pendidikan Islam	11
2.9	Individual Report for Subject Pendidikan Islam	12
2.10	Example of Generated PDF of Individual Report	13
2.11	Example of Generated PDF of Full Report	14
3.1	Pendidikan Islam ERD of Manual System	16
3.2	Mathematics ERD of Manual System	17
3.3	Bahasa Melayu ERD of Manual System	17

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3.4	**Context Diagram for School-based Assessment System**	**18**
3.5	**Data Flow Diagram for School-based Assessment System**	**19**
3.6	**Entity Relationship Diagram(ERD) for School-based Assessment System**	**31**
3.7	**Create Table Subject Syntax**	**32**
3.8	**Create Table Teacher_Class_Subject Syntax**	**32**
3.9	**Create Table Exam Syntax**	**32**
3.10	**Create Table Year Syntax**	**32**
3.11	**Create Table Field Syntax**	**33**
3.12	**Create Table Sub_Field Syntax**	**33**
3.13	**Create Table Band Syntax**	**33**
3.14	**Create Table Subject_Subject_Exam Syntax**	**33**
3.15	**Create Table Overallband Syntax**	**34**
3.16	**Create Table Student_Subject_Overallband Syntax**	**34**
3.17	**Create Table Student_Subject_Field Syntax**	**34**
3.18	**Create Table Student Syntax**	**35**
3.19	**Create Table Student_Class Syntax**	**35**
3.20	**Create Table Institution Syntax**	**36**
3.21	**Create Table Class Syntax**	**36**
3.22	**Create Table Teacher Syntax**	**37**
3.23	**Create Table Teacher_Class Syntax**	**37**
4.1	**Login Form**	**40**
4.2	**Login Flow Chart**	**41**
4.3	**Insert Student Band Process Flow Chart**	**41**
4.4	**Subject Selection**	**42**

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4.5	**getSubjectbyTeacherID Stored Procedure**	**42**
4.6	**getTeacherSubjectClass Stored Procedure**	**43**
4.7	**Band and Subfield Selection**	**43**
4.8	**getFieldbySubjectID Stored Procedure**	**44**
4.9	**getSubFieldbyFieldID Stored Procedure**	**44**
4.10	**Student Selection Form**	**45**
4.11	**getStudentbySubject Stored Procedure**	**46**
4.12	**Insert_Student_Subject_Exam Stored Procedure**	**46**
4.13	**PDF of Full Report**	**49**
4.14	**PDF of Full Report for Each Subject**	**49**
4.15	**PDF of Individual Report for Each Student**	**50**
5.1	**How The Band Being Calculated on SBAS**	**53**
5.2	**Subquery Used on SBAS**	**54**
5.3	**Loop Coverage on Producing Subject's Band**	**55**
5.4	**Field Selection Interface**	**57**
5.5	**Exam Types Selection Interface**	**57**
5.6	**Subfield Selection Interface**	**58**
5.7	**Band Selection Interface**	**58**
5.8	**Individual Report for Mathematics**	**59**
5.9	**Individual Report for Pendidikan Islam**	**60**

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LIST OF ABBREVIATIONS

PSM	-	Projek Sarjana Muda
SBAS	-	School-based Assessment System
JSP	-	Java Server Page
ERD	-	Entity Relationship Diagram
SQL	-	Structured Query Language
PDF	-	Portable Document Format
PL/SQL	-	Procedural Language/Structured Query Language
DFD	-	Data Flow Diagram
GUI	-	Graphical User Interface

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TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	DECLARATION	**II**
	DEDICATION	**III**
	ACKNOWLEDGEMENTS	**IV**
	ABSTRACT	**V**
	ABSTRAK	**VI**
	LIST OF TABLES	**VII**
	LIST OF FIGURES	**IX**
	LIST OF ABBREVIATIONS	**XII**
CHAPTER I	**INTRODUCTION**	**1**
1.2	Project Statement	2
1.3	Objectives	2
1.4	Scopes	2
1.5	Project Significance	3
1.6	Expected Output	3
1.7	Conclusion	4
CHAPTER II	**ANALYSIS**	**5**
2.1	Introduction	5

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2.2		Background of Current Practice	5
2.3		Current Interface Practice	6
	2.3.1	Manual School-based Assessment Book.	6
2.4		School-based Assessment System	9
	2.4.1	Interfaces	10
		2.4.1.1 Evaluation Form	10
		2.4.1.2 Selection Form	11
		2.4.1.3 Full Report	11
		2.4.1.4 Individual Report	12
		2.4.1.5 Output	12
2.5		Conclusion	14
CHAPTER III		**DESIGN**	**15**
3.1		Introduction	15
3.2		Design of manual system for School-based Assessment.	16
3.3		Design of School-based Assessment System (SBAS).	17
	3.3.1	Context Diagram	18
	3.3.2	Data Flow Diagram (DFD) Level 0	19
3.4		Conceptual Database Design of SBAS.	20
	3.4.1	Data Dictionary	20
	3.4.2	Business Rules	28
3.5		Logical Database Design	30
	3.5.1	Entity Relationship Diagram (ERD)	30
3.6		Physical Database Design	32
3.7		Conclusion	38
CHAPTER IV		**IMPLEMENTATION**	**39**

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4.1		Introduction	39
4.2		Implementation Status	39
4.3		Student's Band and Report	40
	4.3.1	Login	40
4.4		Reporting	48
	4.4.1	Full Report	48
	4.4.2	Individual Report	50
4.5		Conclusion	50
CHAPTER V		**TESTING**	**51**
5.1		Introduction	51
5.2		Test Strategy	51
5.3		White Box Testing	52
	5.3.1	Calculation	52
	5.3.2	Subquery	53
	5.3.3	Loop Coverage	55
5.4		Black Box Testing	56
	5.4.1	Band Insertion Interface	56
	5.4.2	Individual Report Interface	59
5.5		Conclusion	61
CHAPTER VI		**CONCLUSION**	**62**
6.1		Observation on Weaknesses and Strengths	62
6.2		Proposition for Improvement	63
6.3		Contribution	63
6.4		Conclusion	64

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CHAPTER I

INTRODUCTION

1.1 Introduction

The School-based Assessment System (SBAS) is a part of the main project named Parental Relationship Information Management System. The system main purpose is to computerize the technique of recording the band achieved by the students. Moreover, the band for the particular subject is automatically calculated once the evaluation for the subject is filled.

Currently, there is no system exists for this purpose as the teachers still have to records the students band manually using the provided book in a form of excel document. Then, all the recorded bands will be kept in single repository. In order to make the process become centralized, the proposed system will be built as a web-based system.

The system enables the teachers to get the students report either for each or all subjects taken as the proposed system can generate report for both reports. The report will be generated in a Portable Document File (PDF) format which enables to make a hardcopy as a report.

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1.2 Problem Statement

Currently, the band achieved for the students is recorded manually as the teachers need to records using the provided book. This technique caused the school management facing problem on dealing with their academic management. The process is time consuming and requires a lot of work since the teachers need to record and calculate the band achieved manually. In addition, this manual process will lead to mistake in calculating the bands achieved by the student. Besides, the risks of record being accidental skip or deleted are high due to human error.

1.3 Objectives

- To change the method of collecting student's band form manual to computerize system.
- To automatically generate the report for student
- To automate the calculation of the band's number that achieved by the student.

1.4 Scopes

There four scopes that included in this system which are:

1. Student
    - The system is used to record the band that achieved by the student.

2. Teacher
    - This system will be used by the teacher. After login, they will able to see the band of their students.

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3. School management
    - Principle or relevant parties will be able to check the band of the students.

4. Government School
    - The system will be used by in the government school in Malaysia.

1.5 Project Significance

The School-based Assessment System will be developed for the Ministry of Education to be use by school in Malaysia that will benefit teacher mainly. This system hold high potential as it helps teacher to save a lot of times in record the band for the student. Then the calculation will automatically done and the result will be stored into the database. It helps to the teacher by reducing the time consumed on calculating the band for the student and summarized all of it.

1.6 Expected Output.

In order to get the band for that particular subject, the system will calculate the band for each field that contain in that subject. After that, this system use the result to calculate the band that been achieved by the student for each subject taken. Teachers are able to print out the result as their references as the result will be generated as PDF report.

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1.6 Conclusion

In conclusion, the system is a part of the main project named Parental Relationship Information Management System. Based on the observation, most of school in Malaysia used manual system in order to record the student's band. Hence, the system is targeted to help school management to record the student's band in proper and efficient ways. Hopefully that the School-based Assessment System bring benefits to their entire user especially the teachers.

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CHAPTER II

ANALYSIS

2.1 Introduction

Manual book for record student's band achieved which is represent in Microsoft Excel is a currently process to record student's band for each student in school. It has been in place for many years. There are no attempts to computerize this manual system since there are no complaints from teacher or school management. In this chapter, we will review the manual process of recording the band for student. Then we will review the current manual system. Finally, we propose SBAS.

2.2 Background of Current Practice

Currently, for every subject, there is one teacher that is responsible for the subject. The teacher of the subject is the one who will make evaluation for the student as they need to give the respectively band to them.

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This current practise is not efficient. As mention in above paragraph, the evaluation process is stored two times using the current procedure. This happened because the calculation method is stored in the custom excel document, which force teacher to calculate the band for student manually. For some subject with a lot of field/subfield required, this may lead to confusion.

The sample of workflow of the current practice will be shown in a flow chart as shown in Figure 2.1.

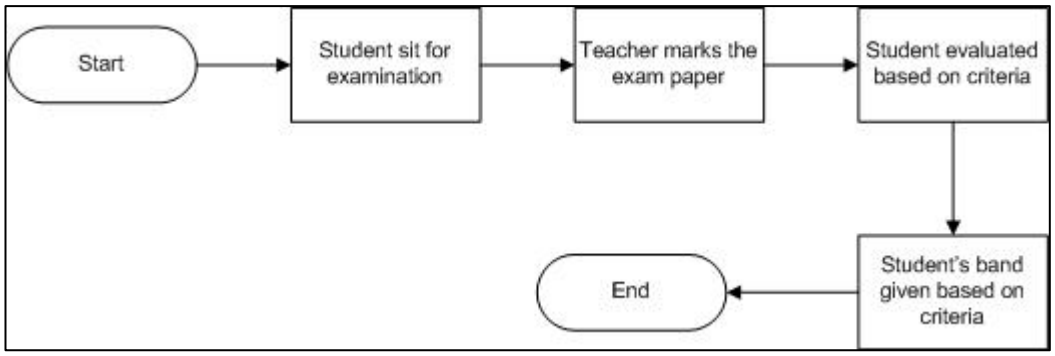

Figure 2.1: Flowchart for Current Practice for Evaluate Student

2.3 Current Interface Practice

2.3.1 Manual School-based Assessment Book.

Figure 2.2 below is the example of manual school-based assessment book in a form of Microsoft Excel document which is currently in used. The evaluation of students will be done in this book. Then the book stored in single repository. Class teacher will collect the book later to fill up his/her student's band achieved as they need to do the academic report for their student. Basically, this book will be used after students done with their examination period which required teachers to do evaluation for the subject that they teach and come out with the result.

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Figure 2.2 : School-based Assessment Book

From the Figure 2.3 below, we can see the process of recording the band to each student for one particular subject which is “Pendidikan Islam” for year four. In reality, it is look like simple but actually it is not.

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