WORKSHOP II MANAGEMENT SYSTEM - MARKING MODULE (WMSMM)

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JUDUL: WORKSHOP II MANAGEMENT SYSTEM MARKING MODULE

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WORKSHOP II MANAGEMENT SYSTEM - MARKING MODULE (WMSMM)

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2010

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DECLARATION

I hereby declare that this project report entitled
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Is written by me and my own effort and that no part has been plagiarized without citations.

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DEDICATION

A special dedication goes to my beloved parents who always support me in completing this project. Besides, I also would like to dedicate to my supervisor for supervising me. Your guidance brings incredible inspiration to me.

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ABSTRACT

Workshop II Management System Marking Module is built for Faculty of Information and Communication Technology (FICT) at Universiti Teknikal Malaysia Melaka (UTeM) which is located in Durian Tunggal, Melaka. The management of Workshop II subject is currently done manually where data is recorded into a file. Paper work consumes precious time, causes data mistake and data loss due to man power careless. On the other hand, paper-based form is lack of security, thus records are easily disclosure and visible to unauthorized person. Besides, it is difficult to access and update the hand writing records. Therefore, the purpose to develop a computerized system is to replace the current manual tracking operation. The system enables lecturers to keep record of evaluation form in a systematic way. The methodology used for the system is Object Oriented Analysis and Design (OOAD). There are four (4) modules to be developed in Workshop II Management System and the modules are depicted in the Use Case Diagram and Activity Diagram. Three-tier architecture was chosen because it is more flexible and high performance. Next, the Entity Relationship Diagram (ERD) and business rule are produced during conceptual design while Data Dictionary is produced during logical design. Finally, HyperSQL DataBase (HSQLDB) had been selected as the Database Management System of Workshop II Management System Marking Module.

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ABSTRAK

Workshop II Management System modul pemarkahan dibina khas untuk Fakulti Teknologi Maklumat Dan Komunikasi di Universiti Teknikal Malaysia Melaka (UTeM) yang terletak di Durian Tunggal, Melaka. Kini, pengurusan Bengkel II subjek dilakukan secare manual di mana data disimpan dalam fail. Kertas kerja selalunya memakan masa yang banyak dan menyebabkan kesalahan data dan kehilangan data akibat kecuaian penyelaras. Selain itu, borang bentuk berasaskan kertas kurang selamat disebabkan rekod-rekod mudah terdedah dan terlihat oleh mana-mana pihak yang tidak berkuasa. Selain itu, rekod-rekod dalam bentuk tulisan tangan adalah susah untuk dikemaskini. Oleh demikian, tujuan untuk mengkomputerkan sistem adalah untuk menggantikan kerja-kerja dokumentasi. Sistem ini membolehkan pensyarah untuk menyimpan rekod borang penilaian secara sistematik. Metodologi yang digunakan untuk system ini adalah *Object Oriented Analysis dan Design (OOAD)*. Terdapat empat (4) modul dalam sistem ini dan modul digambarkan di dalam *Use Case Diagram* dan *Activity Diagram*. Seni bina tiga-tier dipilih untuk sistem ini kerana ia lebih fleksibel dan prestasi tinggi. Seterusnya, *Entity Relationship Diagram (ERD)* dan peraturan perniagaan dihasilkan sepanjang reka bentuk konseptual manakala kamus data dihasilkan sepanjang reka bentuk logik. Akhirnya, *HyperSQL DataBase (HSQLDB)* telah dipilh sebagai *Database Management System (DBMS)* bagi *Workshop II Management System* modul pemarkahan.

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LIST OF ABBREVIATONS

PSM	-	Projek Sarjana Muda
WMSMM	-	Workshop II Management System-Marking Module
UTeM	-	Universiti Teknikal Malaysia Melaka
FICT	-	Faculty Information and Communication Technology
DBMS	-	Database Management System
OOAD	-	Object Oriented Analysis and Design
OOA	-	Object Oriented Analysis
OOD	-	Object Oriented Design
CM	-	CourseMaster
NIC	-	Network Interface Card
UML	-	Unified Modeling Language
ERD	-	Entity Relationship Diagram
URL	-	Universal Resources Locator
JSF	-	JavaServer Faces
LAN	-	Local Area Network
SCM	-	Software Configuration Management
HSQLDB	-	HyperSQL DataBase

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CHAPTER I

INTRODUCTION

1.1 Project Background

Workshop II Management System Marking Module (WMSMM) is a web-based system that manages everything associated with Workshop II subject at Universiti Teknikal Malaysia Melaka (UTeM) which is use by lecturers and administrator. Lecturer can mark each report, such as proposal, progress report and final report by fill in the evaluation form through this online system. The system will auto update the mark according to category which is group mark or individual mark. Then, the system will calculate the total mark given for each form and update to database.

For administrator side, administrator can fill in the exhibition mark and view students' carry mark. Administrator will insert the poster and product mark by fill in the evaluation form. The system will auto calculate the total mark for exhibition and update the data into the database. Besides that, admin can view all the carry mark for each student. There is a communication between administrator and lecturers where lecturer can view the data insert by admin and admin also can view the marks given by lecturer.

Therefore, with WMSMM system, it helps the lecturers and administrator in managing Workshop II subject assessment and eases the burden of lecturers and administrator in calculating the total mark.

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1.2 Problem Statements

There are a few weaknesses identified from the current marking process. Among the main problems identified are listed as below:

i. Error in calculation

The current mark calculation is manually calculated by administrator and lecturer. Lecturers and administrator have to manually sum up the total mark for each report or evaluation form for this subject. Problems like error in calculation are common and easily happen.

ii. Data loss

The marking process is done in paper-based which is easily lost and hard to manage. Sometimes, it was a problem to arrange the files and maintain the records. There was always the danger of fire or damage that might result in permanent loss of those data.

iii. Accessible of data

The records are not accessible at anytime or anyplace. Sometimes, it is problem to carry a bundle of paper to every way. If a lecturer or administrator is outstation or not in office, they cannot access to the record or proceed with their marking task.

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1.3 Objective

i. **To develop a system where lecturers and administrator can keep tracks of students' total mark.**

Through this system, lecturers and administrator can manage the assessment record easily in order to view, insert or edit the data.

ii. **To develop a system that lecturers can manage marking process.**

Lecturers can add or edit report mark for each group and each student in an easy way and provide a paperless environment.

iii. **To develop a system that helps lecturers and administrator calculates students' total mark.**

Provide auto calculation of total mark for each evaluation form and total mark for each student.

1.4 Scope

As general, this system is a web-based application where administrator and lecturers can manage assessment record of students.

i. **Add or update student's mark.**

Lecturer can add or update the students' mark that is assigned to him or her.

ii. **Calculation of total mark.**

Calculate the total mark for each evaluation form and for each student.

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iii. View student's total mark.

The total mark of student can be viewed by lecturer which is assigned to him or her and for all students can be viewed by administrator.

1.5 Project significance

Workshop II Management System Marking Module possesses some important benefits:

i. Auto calculation of students' total mark.

By having Workshop II Management System Marking Module, the total mark for each form given by lecturer is auto sum up. Besides that, the total mark of student for this subject is automatically calculated and graded. Therefore, the management of Workshop II can be done in a faster way and reducing the calculation error.

ii. Auto generates report for Workshop II subject.

A grades report will be auto generated by system. The graph is useful in analyse the achievement of students in this subject and have an overview of students' grade.

1.6 Expected Output

A web based application that helps administrator and lecturers in managing their Workshop II assessment. Administrator and lecturers able to add and edit the mark for each evaluation form. This system eases the marking process by providing the auto calculation of total mark for each evaluation form and for each student.

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Lecturer and administrator can just insert the mark and the system will do all the calculation for them. Besides that, a report will be generated by the system to administrator as a reference for further use.

1.7 Conclusion

In this chapter, it is more focus on the project background, problems that occurred in current system and the objective and scope of this project. In order to solve the problems that are exists in current assessment process, Workshop II Management System Marking Module (WMSMM) is proposed. WMSMM system can reduce paper work and workload of administrator and lecturers which will take a lot of time and inconvenient in managing the assessment.

For the next chapter, it is focused on the literature review and project methodology. It discusses more detail of the project background and shows the comparison between current system and Workshop II Management System Marking Module. Besides that, it will describe the methodology that is going to be used to complete the Workshop II Management System Marking Module. On the other hand, it also shows the requirement for software, hardware, and network. The project schedule and milestone will also be provided in it.

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CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter will discuss on literature review conducted and methodology used to develop the Workshop II Management System Marking Module (WMSMM). With today's rapid growth of information technology, a system should be developing that provides many features that assist lecturer to manage students' assessment. With a web-based system, lecturers and admin are capable to entering and processing student marks and grade data into electronic evaluation form at anytime and from anywhere.

Assessment has always been an important part of a lecturer's work with students. Lecturer assesses their students in many ways such as tests, exams, projects and presentations. The purpose of using Workshop II Management System Marking Module that was designed to replace the traditional paper-based methods of managing marks for Workshop II subject. It helps lecturers to enter and make changes of marks for each student.

This chapter will be defined definitions and framework of WMSMM which covers the related works, hardware and software requirements, and the definition and concept being used. Besides that, the definition and concept of developing this system will be discussed in this chapter. This is to provide a better understanding on the direction or path towards making this system a success.

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