LECTURE ASSESSMENT SYSTEM
(LOGIN MODULE AND MANAGE USER MODULE)

NORAINI BINTI IBRAHIM

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In the Name of Allah, the Most Beneficent, the Most Merciful

Special Dedication of This Grateful Feeling to My Beloved Family…

My Father and Mother, My Sisters and Brothers, My Special Fiancée, My Aunties and Uncles and All Friends

For Their Love and Support

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ABSTRACT

Information Technology Centre (ITC), KUiTTHO has taken an initiative to integrate all their systems into Total Campus Management System (TCMS). Unfortunately, student assessment is not running well. KUiTTHO personnel cannot monitor students' and lecturers' progress and performance closely. Besides that, the lecturers cannot get the exact amount of student list. Therefore, the students do not have any marks and grade. It only realized at the end of academic semester. Thus, an electronic student assessment system needs to be developed to overcome this issue. Lecture Assessment System (LAS) is suggested to make students assessment management going smoothly. This technical writing will cover from planning phase until the development of prototype system. This web-based system is developed according to V-Shape model as software process and MIL-STD-498 standard for document standard.

ABSTRAK

Pusat Teknologi Maklumat (PTM), KUiTTHO telah mengambil inisiatif mengintegrasikan keseluruhan sistem teknologi maklumat KUiTTHO dalam satu sistem dikenali *Total Campus Management System (TCMS)*. Namun demikian, pengurusan penilaian markah pelajar oleh golongan pensyarah didapati masih tidak berlaku selancar yang diharapkan. Pihak pengurusan KUiTTHO tidak dapat memantau perjalanan dan prestasi pelajar dan pensyarah secara dekat. Pensyarah-pensyarah pula tidak dapat memperolehi bilangan sebenar pelajar yang telah mendaftar di kelas mereka. Ini menyebabkan terdapat sebilangan pelajar yang tercicir namanya. Justeru itu sering terjadi di mana terdapat pelajar yang tidak mempunyai sebarang markah. Ini hanya disedari oleh pensyarah dan pelajar pada akhir semester pengajian. Selain daripada itu, satu sistem pengurusan penilaian markah pelajar secara elektronik diperlukan bagi mengatasi masalah-masalah ini. Maka adalah dicadangkan agar Lecture Assessment System (LAS) diwujudkan bagi melancarkan lagi proses pengurusan penilaian markah pelajar. Penulisan teknikal ini meliputi proses perancangan sehingga ke peringkat membina prototaip. Sistem ini berteraskan web mengikut model *V-Shape* sebagai proses perisian dan Piawaian *MIL-STD-498* untuk piawaian dokumen .

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LIST OF ACRONYMS

ASP	-	Active Server Pages
CASE	-	Centre for Advanced Software Engineering
CSS	-	Cascading Style Sheet
DBMS	-	Database Management System
HTML	-	Hyper Text Markup Language
ITC	-	Information Technology Centre
JPA	-	Jabatan Perkhidmatan Awam
JSP	-	Java Server Pages
KUiTTHO	-	Kolej Universiti Teknologi Tun Hussein Onn
LAS	-	Lecture Assessment System
MIL	-	Military
PHP	-	PHP: Hypertext Preprocessor
SQL	-	Structured Query Language
SDD	-	Software Design Description
SDLC	-	Software Development Life Cycle
SRS	-	Software Requirement Specification
STD	-	Standard
TCMS	-	Total Campus Management System
UML	-	Unified Modeling Language
UTM	-	Universiti Teknologi Malaysia
XHTML	-	Extensible Hyper Text Markup Language
XML	-	Extensible Markup Language

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CHAPTER 1

INTRODUCTION

1.1 Company Background

In this section, the writer will describe about company background that the writer was attached. It includes the type of company business and its organization structure.

1.1.1 Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO)

Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO) is famous known as Polytechnic Staff Training Centre or Pusat Latihan Staf Politeknik. It is formed and managed jointly by the Universiti Teknologi Malaysia and the Ministry of Education to train engineering lecturers for the Polytechnic under the 6th Malaysian Plan.

Due to its significant role and contribution in producing qualified polytechnic lecturers as well as the government's trust towards the capability of the organization, the training centre was officially upgraded to Institut Teknologi Tun Hussein Onn

(ITTHO) on 12th April 1996 by Minister of Education, Dato' Seri Najib Tun Abdul Razak. It is named after the third Prime Minister of Malaysia, the late Tun Hussein Onn.

With the government's trust as a motivation, ITTHO kept on moving ahead with excellent creative and innovative programmes. Thus, on 27th September 2000, the cabinet decided to award the status of ITTHO to full pledge public university under the Section 20 of the University and University Colleges Act 1971 to fulfill the demand of producing highly qualified professionals and technocrats in the fields of engineering and technology. The inaugural announcement of Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO) was made on 30th September 2000 by the Minister of Education, Tan Sri Dato' Seri Musa Bin Mohammad.

1.1.2 Information Technology Centre, KUiTTHO

During the five months period for industrial attachment, the writer was assigned at Information Technology Centre, a unit that manages KUiTTHO electronic management.

Information Technology Centre started its operation in December 1994. Currently, the office is complete with a wide campus link, based on a Fiber Optic Backbone, the UTP and coaxial cable. 3 Com Netbuilder II Router together with 3 Com MSH Hubs and a Switch Hub is centering KUiTTHO's link. This link is also interrelated with the outside world through a leased line with 512 KBPS speed and was upgraded to 2 MBPS speed at the end of 2001. KUiTTHO's link is centralized to a server system through a backbone fiber optic line using the engine Avaya P550 network which is able to support data until 100 MBPS by using the Fast Ethernet

Technology and is in the process of upgrading it to GBIT technology which is able to reach a maximum of 1000 MBPS speed.

1.2 Project Background

In this section, the writer will describe the team structure that the writer was involved. It includes the writer's roles in this LAS project and the deliverables that the writer must be completed.

1.2.1 Team Structure

Figure 1.1 below shows the team structure of LAS.

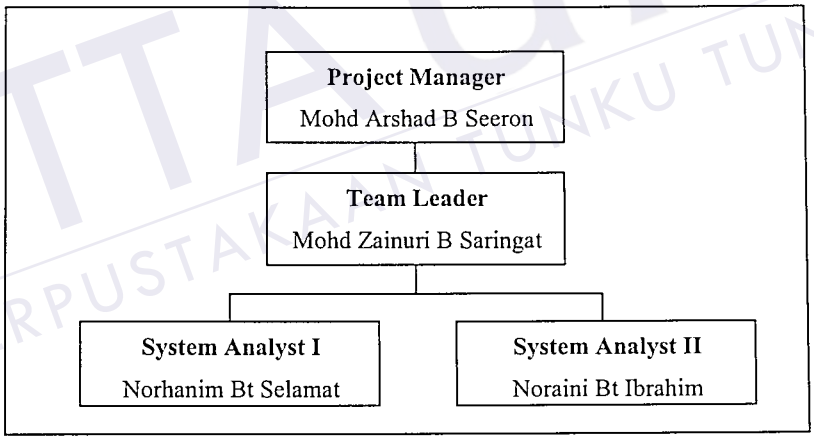

Figure 1.1: Team Structure of LAS

LAS is developed by three persons. They are Mohd Zainuri B Saringat, as a Team Leader, Norhanim Bt Selamat as System Analyst I and the writer as System Analyst II. Team Leader was concerned on Manage Student Attendance and Manage Marks modules, Developer 1 on Retrieve Report module and the writer on Login and Manage User modules. The development team is reporting to Mohd Arshad B Seeron as Project Manager.

1.2.2 The Writer Roles

During five months of this industrial attachment period, the writer was studying on what is required by KUiTTHO personnel. Besides that, the writer was identifying the existing flow of student assessment. After understand the flow, the writer was required to define the user requirements for the system. The writer had to consider all the expected users of the system. Then, the writer required defining the preliminary design and detailed design. During this period, the writer also required to develop a system. The writer was assigned to Login and Manage User modules.

1.2.3 Deliverables

Besides the coding of Login and Manage User modules, the writer also required to prepare two related documents. They are Software Requirement Specification (SRS) and Software Design Description (SDD).

CHAPTER 2

OBJECTIVES

2.1 Project Objectives

The objectives of the project are:

i. KUiTTHO lecturers are able to input student's mark electronically through web based and the management of Information Technology Centre of KUiTTHO will get an updated students' mark directly from the lecturer.

ii. Preparing a list of registered student's name before the first class begins.

iii. Preparing a list of student attendance and also indicate and remind the lecturer to give warning letter (s) for one or more absence students.

iv. Preparing student's grading based on total marks of assignments, tests, quizzes, laboratories and final examination.

v. Preparing an assessment report of student's progress mark and student's progress attendance for the Head of Department, Academic Advisor and Academic Management Officer.

2.2 Project Background

In this section, the writer will describe the background of proposed system, Lecture Assessment System (LAS). It includes the description of Total Campus Management System (TCMS) that LAS was integrated into.

2.2.1 Total Campus Management System (TCMS)

TCMS KUiTTHO preparing availability for managing the resources effectively through accurate distribution information to specific user. It is a campus management system that giving an advantages to management of university as a whole through data integration, an optimum resources management and preparing an efficient information technology service.

Currently, TCMS KUiTTHO consists of ten (10) items. They are:

i. Student Information System (*Sistem Maklumat Pelajar*)
ii. Online Academic Advisory System (*Sistem Penasihat Akademik Atas Talian*)
iii. Staf Information System (*Sistem Maklumat Staf*)

iv. Financial Information System (*Sistem Maklumat Kewangan*)

v. Executive Information System (*Sistem Maklumat Eksekutif*)

vi. Online Student Academic Information System (*Sistem Maklumat Akademik Pelajar Atas Talian*)

vii. Electronic Senate Meeting System (*Sistem Mesyuarat Senat Elektro*

viii. Online Lecturing Assessment Form System (*Sistem Borang Penilai Pengajaran Pensyarah*)

ix. Electronic Learning (*Pembelajaran Elektronik)*

x. Technology Virginia Library System (*Sistem Perpustakaan Virgini Teknologi*)

2.2.2 Overview of Lecture Assessment System (LAS)

Figure 2.1 below is an overview of the writer proposed system, Lectur Assessment System (LAS).

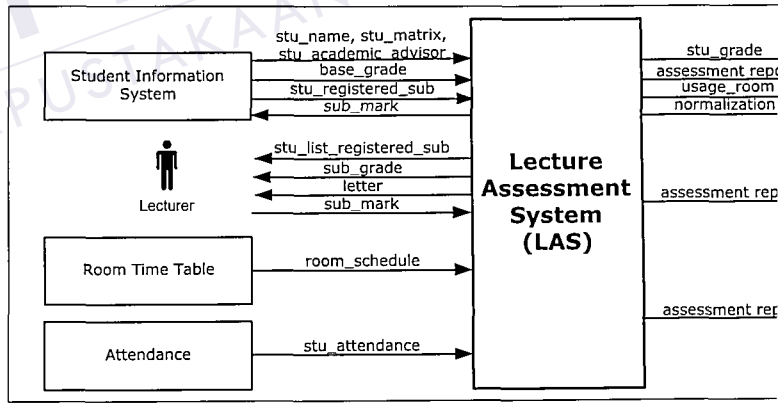

Figure 2.1: Overview of LAS

2.3 Project Scope

The project provides the different needs of every user. In this project, there are six (6) levels of user. The scope of each level is described below:

1. Lecturer Subject
   - System provides list of registered student name based on subject and section lectured.
   - System produces grade of subject.
   - Lecturer can input marks of
     - Assignments
     - Tests
     - Quizzes
     - Laboratories
     - Final
   - Determine ratios of every assessment.
   - Able to input assessment for more than one subject.
   - Able to input in students' absent by date.

2. Head of Department
   - Report of total marks of
     - Assignments
     - Quizzes
     - Tests
     - Laboratory
     - Final

- Report on total percentage of attendance.
- Report of letter out.

3. Academic Management Office
   - Student assessment report.
   - Graph of mark.

4. Academic Advisor
   - *Student progress mark.*

5. System Administrator
   - Able to do following activities:
     - Add User
     - Delete User
     - Change User Password
     - Update User Profiles
     - Manage User Roles

According to the scopes listed above, the writer was producing Software Requirement Specification (SRS) that specifies the engineering and qualification requirements of the system.

Besides that, the writer also was preparing Software Description Design (SDD) that describes the preliminary and detailed design of Lecture Assessment System. It includes the sub-system programming steps and definition of the result of the analysis and the detailed design.

Based on the design, the writer develops a prototype system of LAS. The writer was involving in two (2) modules. They are Login and Manage User.

2.4 Project Deliverables

The documents that the writer has to produce as project deliverables are:

i. Software Requirement Specification (SRS)
ii. Software Design Description (SDD)
iii. Prototyping of Lecture Assessment System

2.5 Project Schedule– Gantt Chart

The project schedule is shown as per attached in Appendix A.

CHAPTER 3

LITERATURE STUDY

3.1 Study on Current Workflow

Student assessment plays a main role especially in producing students' grade and result. Currently, there is no complete system applied in KUiTTHO. The current process is not running centralize. It starts when the lecturer gets a list of students' attendance from every lectured session. According to the list, the lecturer will input all the assessments including quizzes, test, laboratory report, assignment and final examination.

After the students complete final examination, the lecturers have to input all the assessment mark into an assessment form provided by Academic Management Office and Information Technology Centre. Then, clerk at the faculty will transform the assessment to Student Information System (*Sistem Maklumat Pelajar*).

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