Examination & Quiz system (EQs)

ONG RHUI YONG

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

FALCULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITY TEKNIKAL MALAYSIA MELAKA

2014

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DECLARATION

I hereby declare that this project report entitled

EXAMINATION & QUIZ SYSTEM

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

STUDENT : _____ Date : _____
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SUPERVISOR : _____ Date : _____
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DEDICATION

I dedicate this report first and foremost to my supervisor Madam Hidayah Binti Rahmalan who has been there right from the beginning to this very point. Special dedication also to my ever supportive parents, for their relentless support and compassion towards me during the course training.

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ABSTRACT

Examination & Quiz System (EQs) is a web based Academic management system that help user in the field of Questions preparation and can be used in any schools or Universities that in question preparation. EQs need to be used with Utech Intelligent Academic System (UiAM) in order to operate. Hence, EQs is an extend edition of UiAM. Other from that, EQs also difference from other existing question preparation system in market. The Literature indicates that the frameworks for OBE "share an emphasis on systems-level change, observable, measurable outcomes, and the belief that given time, all students can learn and postulate that the shift towards OBE resulted from worries about the traditional education system.

The endorsement of OBE in Malaysia's education system is to provide quality assurance in producing graduates ready for industry practice in national and international levels. One of the important aspect of OBE is how lecturers need to design the assessments to ensure that it is in line with the learning outcome as planned. However, in practice, most of the lecturers unaware of the learning outcome while preparing the exam questions. Meanwhile, preparing Jadual Penentu Ujian (JPU) lecturers tend to mismatch the learning outcome or miscalculate the percentage exam questions.Object Oriented will be the project used methodology. The source of the analysis is written use cases, UML diagrams that can be used to illustrate the statements. There are three problem statement for this project : difficulties in prepare the question paper, difficulties in prepare the JPU table and also unable to check the performance and weaknesses in time. In order to solve problems for this project, few objectives are fixed. First, to help lecturer to generate final exam questions paper based on the setting assessment in the Teaching Plan. Second, to generate (Jadual Penentu Ujian) JPU table using standard template. Third, to help lecturer know student's performance and their weaknesses in that particular subject (through quiz).

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Moreover, the expected outcome for this project is EQs suitable for all public university because it follow the standard of Malaysian university syllabus which requested by education ministry.

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LIST OF ABBREVIATIONS

BEM -	Board of Engineers, Malaysia
CQI -	Continual quality improvement
EAC -	Accreditation Council
EQs -	Examination & Quiz System
HTTP -	HyperText Transport Protocol
JPU -	Determinants Exam Schedule
LO -	Learning Outcome
MQA -	Malaysian Qualifications Agency
MoHE -	Ministry of Higher Education
OBE -	Outcome-Based Education
OO -	Object-oriented
OOA -	Object-oriented analysis
OOD -	Object-oriented design
OOAD -	Object Oriented Analysis and Design
UiAM -	Utech Intelligent Academic System
UTeM -	UNIVERSITY TEKNIKAL MALAYSIA MELAKA
UML -	Unified Modeling Language
WA -	Washington Accord
SSADM -	Structured systems analysis and design method

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CHAPTER I

INTRODUCTION

1.1 Project Background

Malaysia Quality Assurance (MQA) in public & private universities has endorse that education system has demonstrated a strong, long-term commitment to quality assurance in producing graduates ready for industry practice at national and international levels. There are three implications of MQA's position on Outcome-Based Education (OBE). First, improvement of procedures, documentation, criteria, etc. Second, a genuine shift towards OBE in the Malaysian Education System. Third, move towards internationalization.

OBE is a recurring education reform model. It is a student-centered learning philosophy that focuses on empirically measuring student performance, which are called outcomes. OBE contrasts with traditional education, which primarily focuses on the resources that are available to the student, which are called inputs. Instead, it requires that students demonstrate that they have learned the required skills and content.

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Based on description above, OBE become an important issue that need to be achieved by every university. Hence, learning outcomes for each subject in academic play a very important role to help student to learn required skills and content. Examination & Quiz System (EQs) is a web based Academic management system that help lecturers for questions preparation which is also an enhancement from the Utech Intelligent Academic System (UiAM). Other than that, EQs also difference from other existing question preparation system in market. Since it will make used of LO (Learning Outcome) in order to prepare question paper.

In previous project (WORKSHOP 2: BITU 3923), UiAM is a system that has been developed able to help lecturer(coordinator) to prepare their teaching plan systematically, that means lecturer just need to fill up the related information into the system and the system will able to generate a suitable teaching plan template for lecturer. UiAM also able to generate statistic data and graph of students' achievements based on learning outcome of each subjects. This will help all lecturers to trace students' performance for particular subject's and understanding level. In addition, it will be helpful to lecturers to improve their teaching skill.

EQs will retrieve the related information required to help lecturer(coordinator) to prepare their Questions according to the subject. Information like learning outcome and lecture cover in teaching plan will be retrieved by EQs. Information retrieved will be used to provide a plateform to the users to create their own questions of examination or quizzes. Hence, UiAM is needed to set the information of teaching plan.

By using EQs, user able to perform online quizzes to student to test students understanding of syllabus. Moreover, after the quiz session is over, lecturers and coordinators able to check student's performance in that particular subject. The performance of students in quiz will be separate to three categories according to difficulty of questions which is set by lecturers. EQs will show the percentage of student's score in each level of difficulty. Other than that EQs provide feature like generate student's performance list in (.pdf) format and also enable coordinator of that subject to import the quiz's questions into final examination question. These features will help lecturers and coordinators to know students weaknesses and test again

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whether the students able to score the same questions in final examination. EQs is a web based system that allow all visitors to visit the system by using browser. Student can even just use their smart phone or tablet to answer the quizzes. Hence, students can performs online quizzes at any time and students can answer the quizzes at anywhere. This will help students and lecturers more understand to student's weaknesses.

Finally, EQs will be very helpful to teacher or lecturers who need to prepare their question papers. All the format of question papers created will be uniformed. This will help the student to answer the paper better for the similar format being used. EQs will provide option to create JPU (Determinants Exam Schedule) template and also schema answer template after complete the template of question paper. This will help lecturers to reduce their workload in preparing JPU template and schema answer template.

Based on the project given, web base system will be built to enable lecturer and student access through network connected with UTeM server. EQs will be constructed under consideration of this four aspects.

- To create question paper for quizzes and examination used.
- To enable lecturer to create JPU template that based on student performance.
- To enable lecturer to create schema answer of exam question paper.
- To provide flexibility in terms of retrieve information.

Project Phase

Phase I: Initial Planning

During this phase, the current academic management systems is practices to determine problems and more detailed list of options is developed for the client.

Phase II: Solution Design

The solution is designed based on the needs of the University with users involved. This tailored approach will help to ensure the customer does not have to pay for excess services.

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Phase III: Implementation

Solution will be implemented in a seamless manner that will be transparent to daily operations. This phase also marks the beginning of our management of client academic management operations and the completion of the solution project as we enter the operations and management stage.

Phase IV: Testing

This is the final phase and system will be tested to track the error.

1.2 Problem Statement

1. **Difficulties in prepare the question paper.**
   There will be difficulties for lecturers to create question paper in same format. Moreover, there is very time consuming in preparing question paper for examination.
2. **Difficulties in prepare the JPU table.**
   There will be difficulties for lecturers to create JPU table. Moreover, there is very time consuming in preparing JPU table for each subject.
3. **Unable to check the performance and weaknesses**
   Lecturers hard to know how the performance and weaknesses of students.

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1.3 Objective

The project embarks on the following objectives:

1. To help lecturer to generate final exam questions paper
2. To generate (Jadual Penentu Ujian) JPU table.
3. To help lecturer know student's performance and their weaknesses in that particular subject (through quiz).

1.4 Scope

1. **Student**
   - Student can answer the questions created by using this system.
2. **Lecturer(Coordinator)**
   - To create question paper.
   - To generate JPU table.
   - To create quiz session.
   - To check student's performance.
3. **Lecturer**
   - To create quiz session.
   - To check student's performance.

1.5 Project Significance

1. Easy for lecturer to prepare generate question paper uniformly.
2. Easy for lecturer to generate JPU table template.
3. Easy for student to answer quizzes online.

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