MOBILE ATTENDANCE WITH NOTIFICATION SYSTEM

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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BORANG PENGESAHAN STATUS TESIS*

JUDUL: MOBILE ATTENDANCE WITH NOTIFICATION SYSTEM

SESI PENGAJIAN: 2014/2015

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MOBILE ATTENDANCE WITH NOTIFICATION SYSTEM

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This report is submitted in partial fulfillment of the requirements for the

Bachelor of Computer Science (Computer Networking)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2015

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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.

STUDENT : _____ Date : _____
(WONG HAO JIE)

SUPERVISOR : _____ Date : _____
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DEDICATION

This project is dedicated to my beloved parents and siblings, who passed on a love of reading and respect for education.

To my project supervisor and friends, thank you so much for help and assist in the project.

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Lastly, I would like to acknowledge the contribution from my friends who give support, guidance during develop this project. Last but no least for those who direct and indirectly helping to complete the project. Your guidance is much appreciated.

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ABSTRACT

Mobile attendance with notification system is an attendance system which developed for Universiti Teknikal Malaysia Melaka. This system will be used by UTeM lecturer to record, monitor student attendance status in university. Mobile attendance with notification system ensures every student has attended each class and lab according Malaysia Qualification Academic (MQA) student rule and regulation. However, current attendance system in UTeM is paper based attendance system that lecturer will print out attendance sheet where the student will sign on the attendance sheet once they attended class. Paper attendance sheet easy to lost and misplace when store in ISO file. Lecturer difficult to keep track previous student attendance status and manually issues warning and barred letter notice to student advisor and faculty administrator. Therefore, a mobile attendance with notification is develop to replace current attendance system. This system just required a smart phone to record student attendance, whereas computer used to keep track previous student attendance status, issues student warning letter and barred letter notification to student advisor and faculty administrator. Mobile attendance system will help university lecturer and faculty save time and manpower to manage student attendance record.

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ABSTRAK

Mobile attendance with notification merupakan satu sistem kehadiran yang dibangungkan untuk Universiti Teknikal Malaysia Melaka(UTeM). Pensyarah UTeM akan menggunakan sistem ini untuk merekod kehadiran pelajar di universiti. Mobile attendance with notification system untuk memastikan pelajar telah menghadir kelas, makmal pratikal mengikut peraturan pelajar yang dinyatakan di Malaysia Qualification Academic (MQA). Sistem kehadiran yang digunakan oleh UTeM merupakan system kehadiran berdasarkan kertas. Pensyarah akan mencetak slip kehadiran untuk pelajar tandantanga ketika hadir dalam kelas. Slip kehadiran mudah hilang ketika menyimpan di ISO fail. Pensyarah sukar memantau rekod kehadiran pelajar dan mengeluarkan surat amaran kepada pelajar yang gagal mengadir diri dalam kelas. Sehubungan dengan itu, satu sistem kehadiran mudah alih telah dibangunkan. Sistem ini hanya memerlukan telefon pintar untuk merekod kehadiran pelajar dan komputer digunakan untuk memantau kehadiran pelajar dan megeluarkan surat amaran notis kepada pensyarah akademik dan fakulti pentadbir. Sistem kehadiran pelajar mudah alih telah memberi bantuan kepada pensyarah dan pihak universiti dari segi masa, tenaga semasa mengurus rekod kehadiran pelajar.

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Chapter I

INTRODUCTION

1.1 Introduction

Attendance is an act of a person attending in activity for any purpose. Attendance could be the frequency and number of people present for an activity or event for. Attendance policy provides a guideline for student to meet expectation as defined in the university.

Today, automated attendance system using MyKad, barcode, fingerprint, QR code, Bluetooth, RFID, and NFC as identification method in automated attendance system to replace paper based attendance system.

Currently, attendance system in University Teknikal Malaysia Melaka (UTeM) mostly relies on paper based record which used a pre-printed attendance sheet. Lecturer has to download attendance sheet from "Sistem Maklumat Pelajar" and print it out before stating class. During the class, lecturer required assigned the pre-printed attendance sheet to student. Students will sign the signature in the attendance sheet that assigned by the lecturer once they attended class. Since the attendance sheet is paper based, the process for record student attendance quite time consuming.

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Therefore, a new mobile attendance with notification system developed for UTeM lecturer to provide more effective in record student attendance in the class.

1.2 Research Background

Currently, University Teknikal Malaysia Melaka(UTeM) student attendance system mostly relies on paper based record which used a pre-printed attendance sheet. Every semester, lecturer will download attendance sheet from “Sistem Maklumat Pelajar” which consist student information for taking particular subject. After that, lecturer will print it out before stating class. During the class, lecturer assigned the pre-printed attendance sheet to student. Students will sign the signature in the attendance sheet that assigned by the lecturer once they attended class.

Lecturer required keep track student attendance record by end of week. Lecturer will manually calculate student attendance to ensure student no absent in the class without any valid reason according Malaysian Qualification Agency's (MQA) policy. This is very time consuming for lecture had to keep track and calculate student attendance one by one as there are about one hundred students in a semester. For the student who absent 3 times in the class, lecturer will issues first warning letter to inform student, student advisor and faculty administrator. A barred letter for taking final exam will be issues when the student had attend in class less than 80% in particular semester.

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1.3 Problem Statements

The problem statements in this project are:

I. Paper-based printed attendance sheet easy to lost and misplace when stored in ISO subject file because store room accessible by everyone.
II. Paper-based attendance sheet difficult to keep track previous student attendance status.
III. Paper-based attendance system required lecturers manually calculate student attendance and issues warning letter.

1.4 Project Question

The research question of this project:

I. How to avoid attendance sheet easy to lost and misplace when stored in ISO subject file.
II. How to keep track previous student attendance status easily.
III. How to solve manually calculate student attendance percentage and issues warning letter and barred letter.

1.5 Project Objective

The objectives of this project:

I. To develop a mobile attendance system to record student attendance.
II. To design a class attendance database to replace paper-based attendance sheet to record student attendance.
III. To create a notification system to issues warning letter and barred letter notification automatically to the student advisor and faculty administrator for student who absent in class when using attendance system.

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1.6 Project Scope

The project scope of this project is:

1.6.1 User

1.6.1.1 Student Advisor

Student advisor will received warning letter or barred letter email notification when student absent in class.

1.6.1.2 University Lecturer

University lecturers are the main user for mobile attendance with notification system. They used this system to record student attendance in the class. In addition, they used this system for monitor and analysis student attendance record. Besides that, lecturer may use this system to issues warning letter to respectively student who no attend class without any valid reason.

1.6.1.3 Faculty Admin

Faculty admin will received warning letter or barred letter email notification when student absent in class.

1.6.2 System

The system consist mobile attendance application client and mobile attendance application server.

1.6.2.1 Mobile Attendance Application Client

Mobile attendance application client is an android mobile application which lecturer used to record student attendance during the class.

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