Universiti Teknologi MARA

Mobile Attendance Tracking System (MobATS) Focuses on Computerized Reporting and Notification

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ABSTRACT

The current system is inefficient and ineffective due to obsolescence and unreliability of the existing conventional attendance system. The existing system requires student to manually sign the attendance sheet whenever they attend classes. By using this conventional system many problems have occurred. This includes unwanted time being consumed by student to sign their attendance during class hours. In addition, some students who do not attend the class may ask their friends to sign the attendance for them. The main focus of this study is on students' attendance registration using Access Point (AP) and student smartphone. The main objective of this system is to enable generate reports and to send warning notifications to students who has a bad record of attendance. In addition, by having online system and database it can help the lecturer to keep track of their students' attendance. In the future, deploying the system throughout the faculty will benefit not only management but also students which could possibly be a key factor in improving teaching quality time and monitoring students' performance. In this project, Rapid Application Development (RAD) methodology has been chosen as a software development methodology. Rapid Application Development will use minimal planning depending on the rapid prototype request and the lack of extensive preplanning will allow much faster and easier changes in the requirement later. Furthermore, it is flexible and adaptable to changes for the prototype later. In this project, it consist of six different phases which are analysis and quick design, build, demonstrate, refining, testing and lastly implementation. In conclusion the system can be easily accessed by the lecturer via the web page and a report can be generated in real time processing thus providing valuable information with regard to the students' attendance.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

The entire project which is the **Mobile Attendance Tracking System** (**MobATS**) is designed exclusively for students to fill their attendance and for the lecturer to obtain the summary report of students' attendance from the system. It provides user-friendly and simple interface which can be used by both students and lecturers. Once the smartphone connect to the access point, students are required to insert their access point passcode that given by lecturer and the system will automatically update their attendance. The lecturer will then be able to view and download the summary report of students' attendance from the web portal. This system also provides notification alert to the students who do not attend the class less than 80% of the total lecture hour by using email notification.

This project aims in implementing software that helps lecturers to take the attendance using student's smartphone. The execution of the procedure is simple, students enter the class and use their smartphones to connect to the access point and confirm their attendance by inserting their user name, password and access point password which are given by lecturer. The data will be saved in the database system which only the lecturer can access and hence the lecturers can see the report of each student's attendance in the web portal. The main goal of this system is to implement a smart attendance system which will integrate the three main networking technologies i.e. wireless, web and e-mail.

The emphasis of this report is on the report generate and notification module of the whole project being developed. This report which is a part of the entire thesis focuses on the generating the report and email integration on the notification module which will be used by the lecturer to notify and send warning alerts to students who