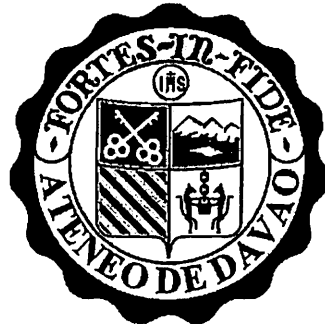


Developing a Mobile Student and Teacher Attendance Monitoring System
Using Android



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**Developing a Mobile Student and Teacher Attendance Monitoring System
Using Android**

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ABSTRACT

Attendance is one of the components which measure the performance of teachers and students in school. Our application not only helps the teacher monitor attendance of students but also allows the teacher to make himself/herself known that he/she is present and on time for that specific time schedule. The application is created in Eclipse which makes use of the Software development kit for android which is the Android SDK. The connection of the mobile phone to the PC server is made using an existing Router which is then connected to the existing Wi-Fi enabled device. Reports Generation is done on the PC server which makes use of the stand-alone program. Importing existing data in the database is also done using the stand-alone application installed. Creation of the stand-alone application is done Microsoft Visual Studio 2010 C# which makes use of Connector/Net driver for Mysql.

Keywords: *Student,* *Teacher,* *Android,* *attendance*

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Attendance is the frequency in which the person is present. By this definition it means that a number of times a person is present. According to Sussex Technical School District," Students' regular and punctual attendance is essential for success. Class attendance is necessary for learning, for social and academic achievement, and for developing such life-long habits such as punctuality, dependability, and self-discipline".

Student and teacher attendance for Android OS is an attendance monitoring system that uses the latest mobile phone operating system which is the Android OS. This application uses Eclipse to develop the application and uses android SDK as the development kit, Android Smartphone is the module for the application and the connectivity between the Android Smartphone and a PC Server is established using a Secured Network. A database containing the student and teacher attendance monitoring is created; this database will be updated depending on real-time events. This database is based on the MIS database which uses MySQL. Our proposed system allows the teacher to monitor the attendance of the students but also to allow the teacher to update his/her attendance punctually.

1.2 Technology Application Context

The study aimed to create a Mobile student and teacher attendance monitoring system using android

Specifically, it seeks to answer the following questions:

1. What is the extent of the Student/Teacher attendance monitoring system using
 - a. Android OS
 - b. Eclipse
 - c. Android Smartphone
2. What is the level of effectiveness of the proposed attendance monitoring system based on the actual testing of the program?
3. How does the teacher monitor student attendance?
4. Is attendance monitoring real-time?
5. How to use the existing database of student/teacher for attendance monitoring?
6. Does the stand-alone program provide reports?
7. Is the data displayed in the stand-alone application accurate/real-time?

1.3 Objectives of the Study

The general objective of this research is to create a Mobile student and teacher attendance monitoring system using android.

The specific objectives are:

- To create an application using android SDK for the Attendance monitoring System.
- To create a stand-alone program using Microsoft Visual Studio for Generating Reports of the student/teacher.
- To create the said application in Eclipse.
- To make use of the existing database of student and teacher.
- To create a database this holds the attendance of the student/teachers.
- To provide a much easier way of monitoring attendance.
- To provide a real-time records on the attendance of the student/teacher.

1.4 Significance of the Study

Teacher sometimes have difficulty in monitoring attendance of the students, especially those students who refuse to go to class because of things that are not related to school work. The proposed system allows the teacher to use his/her Android Smartphone to record the attendance by pressing the teachers' class schedule in the dashboard form.

In pressing the class schedule, the user is directed to the attendance form where he/she can record the attendance of the students. To make the work of the checker who takes attendance for teachers easier, we created this application. The teacher has to make him/herself present in the subject this will help the teachers to be punctual in his/her class. By using this application, the teacher can view the attendance of the students as well as his/her current performance regarding punctuality and absences.

1.5 Scope and Limitations of the Study

The study focuses on monitoring / recording of the attendance of the student and teacher and printing of the reports. The application is created specifically for the recording of attendance is a mobile *Student/Teacher Attendance Monitoring System*. The study uses the existing database of the student/teacher for attendance recording. The teacher holds his/her account, which will be used to gain access on his/her profile. The application contains schedule and the ability to record the teachers and students attendance to that specific schedule. The users are only teachers, specifically teachers who registered his/her self in the application. Attendance recording for the teacher cannot be dynamic because of the database design in MIS. The daily attendance of students cannot be viewed, only the overall tally of the attendance. The stand-alone application is limited to 1 user and that user is the administrator. The technology to be used is limited only to touch screen Android Smartphone, the application is to be used only inside the campus and rooms for the classes must be able to detect Wi-Fi network. The data we are currently using is only from the CS division's database.

1.6 Definition of Terms

Database - A database is an application that manages data and allows fast storage and retrieval of that data.

Software (computer) - is a collection of computer programs and related data that provides the instructions for telling a computer what to do and how to do it. It is a set of programs, procedures, algorithms and its documentation concerned with the operation of a data processing system.

User accounts – allows a user to authenticate to system services and be granted authorization to access them; however, authentication does not imply authorization. To log in to an account, a user is typically required to authenticate oneself with a password or other credentials for the purposes of accounting, security, logging, and resource management.

Dashboard - a dashboard is a user interface that, somewhat resembling an automobile's dashboard, organizes and presents information in a way that is easy to read.

Button - In graphical user interface systems, a well-defined area within the interface that is clicked to select a command.

Report - A document containing information organized in a narrative, graphic or tabular form prepared on ad hoc, periodic, recurring, regular or as required basis.

Print - Lettering or other impressions produced in ink as from type by a printing press or from digital fonts by an electronic printer.

Network - When you have two or more computers connected to each other, you have a network. The purpose of a network is to enable the sharing of files and information between multiple systems. The Internet could be described as a global network of networks. Computer networks can be connected through cables, such as Ethernet cables or phone lines, or wirelessly, using wireless networking cards that send and receive data through the air.

Smartphone - is a device that lets you make telephone calls, but also adds features that you might find on a personal digital assistant or a computer.

Wi-Fi - is a popular technology that allows an electronic device to exchange data wirelessly (using radio waves) over a computer network, including high-speed Internet connections.