

Android Based Attendance Management System

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Abstract: This is an Android based Synchronization App that gets the everyday understudy participation sheet from the remote server and enables the staff to take participation of understudies from the android telephone itself regularly. Every single understudy of the class alongside the period point and number of classes and participation marker check box are recorded in the application to the personnel once he sign into his record for taking participation. The personnel can give the participation and furthermore get the different participation related reports of understudies like combined participation of the whole class, the participation of every understudy over a timeframe between any given dates. The administrator can likewise get the different participation related reports of understudies like solidified participation of the whole class, the participation of every understudy over a timeframe between any given dates. The understudy can likewise check his merged participation between any dates.

Keywords: Android, administrator, etc.

I. INTRODUCTION

Attendance systems of old practices are not quite efficient today for keeping track on student's attendance. Due to the availability of large resources over the internet today, it is very hard to motivate the students to attend lectures without fail.

Have become more challenging. In order to drag the attention of students and make them interactive in observing technologies we move on to latest upcoming trends on developing attendance systems. This is the strong reason for college attendance management system has to come up with an approach that ensures strong contribution of students in classrooms.

To track attendance of the students, many attendance management systems are introduced in the market. With the introduction of this variety of attendance system, skipping classes without the staff's knowledge have become difficult for the students

II. FEATURES EXTRACTION

1. Problem definition

The existing system has a web or desktop based application for student attendance management and the faculty must take the attendance and later should enter the attendance details into the server manually.

DISADVANTAGES OF EXISTING SYSTEM:

1. In every classroom a computer is required to access and therefore expensive.
2. A PC may have to be provided with a UPS backup for making it run always any time in the class room.

2. Proposed system

The Proposed system provides a facility to access the Student Attendance Management System from a Android Mobile phone (Most Common Mobile used in the world).

ADVANTAGES OF PROPOSED SYSTEM:

1. Automatic access to the server from the phone through Wi-Fi and Easy synchronization of attendance data to the server whenever the Wi-Fi network is available without the need to manually update this again into the server.

2. No UPS or additional power backup required and gets the advantage of Mobility because of a Mobile phone client.

III. MODULES

• Server module

This module is important for getting the data from the mobile client into the MYSQL server Database and sending it back to the android mobile client through JSON parsing and tomcat.

• Client Module

This module is important for showing the attendance sheet login page, attendance sheet and various reports like consolidated report of attendance of a class and attendance report of each student to the concerned faculty after successful login to the App.

• Admin Module

Here the admin can get the consolidated attendance report of each class for all subjects between any dates of query. The admin also creates or modifies faculty users and provides them with user names and passwords.

• The JSON Tomcat Synchronization Module
This module synchronizes the attendance taken by the faculty on any particular date to the remote server in the background, whenever there is a Wi-Fi connectivity.

• Student Module

This module is used to check consolidated student attendance after successful login in to

the server.

• Graphical Reports

This module is used for reporting consolidated student attendance and also consolidated class attendance report on any particular date in a line, bar, and pie graphical representation.

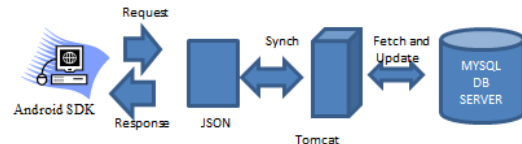


Fig 1 Technical Architecture

IV. APPLICATIONS

It can be used wherever the attendance is a necessity such as in schools, colleges and institutes and almost Everywhere.

- It can be used in small scale as well as in large scale industries with little modification.
- Remote access to information through websites.

V. FUTURE SCOPE

• In future application, an enhancement of the current features to also send emails to the respective parents and regular or periodic alert system regarding student performance may be added.

• As soon as the students log in the application in the class, they will be available for the attendance. • The lecturer will then submit the attendance using the availability of the students those who are logged in. → SMS module can be implemented which will inform students about low attendance and various events.

Flow Diagram

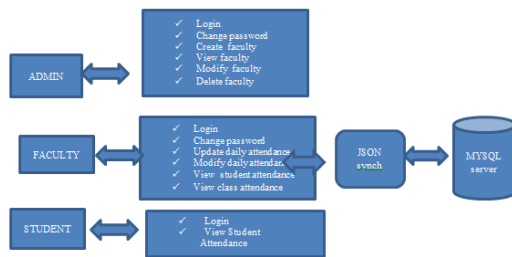


Fig. flow diagram

VI. RESULTS

This implementation is done on the server and smartphone. Implementation on the server is done using Java, while the implementation of smartphone is using Android. The application is tested on Android smartphone version Lollipop 5.0.1.

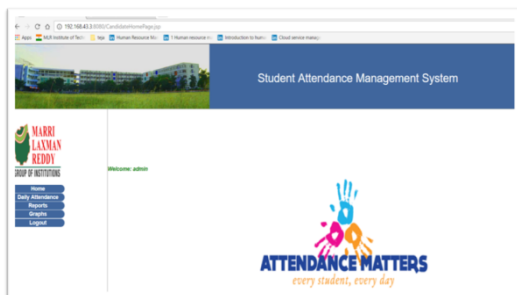


Fig: Home Page

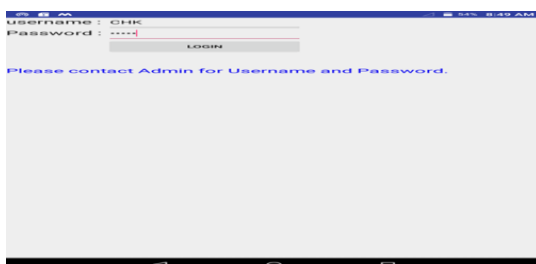


Fig: Login page

VII. CONCLUSION

The Student attendance management app on android is a very handy and useful app for any educational institution for the faculty to easily

monitor and update attendance records of students of any course or department or section on any date by concerned faculty with a secure login synchronized to the remote server.

The App also displays reports of consolidated attendance both course wise and roll no wise as figures and bar, pie or line graphs. It has an added feature of sending SMS to concerned students for any course, any section or department by the concerned faculty.

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