

STUDENT ATTENDANCE APPLICATION

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Abstract - Student attendance Application deals with the student's attendance details. It is generating the attendance of the student on basis of presence in class. It is maintained on the daily basis of their attendance. the staffs will be provided with the separate username password to make the student's status. The staffs handling the particular subjects responsible to make the attendance for all students. Only if the student present on that particular period, the attendance will be calculated and the absent student notification will be sent to their parents via pre-recorded message and voice call. The student's attendance reports based on weekly and monthly will be generated. It is a cross platform mobile application where teacher can mark attendance of student virtually and no need to carry attendance book every time to keep the record. This application takes multiple parameters into consideration. This application also has the functionality to generate the attendance sheets in excel format to the instructor. The students attendance reports based on weekly and consolidate will be generated. The application is aimed to save class time at no extra cost of purchasing any special peripheral devices.

Keywords: *Mobile application, Student attendance and mark management system, API,, Paperless Office, Attendance Management.*

1.INTRODUCTION

Smartphone's are by far the most significant consumer invention of the 21st century. Mobile applications are what made the Smartphone very useful. There are many advantages of using mobile applications based in education perspective that can be considered nowadays. For example, manual recordings of students' attendance using paper can be time-consuming and vulnerable to loss. Furthermore, it takes time for the university administration to manage and process attendance records. sing a mobile attendance system it eliminates the disadvantages using manual system. Currently, student attendance records at most universities/ colleges/ schools use conventional methods to make the students sign the attendance during lectures. In most cases, the manual paper-based attendance method requires many steps such as writing names on piece of paper, signing on the attendance sheet, saving the records in a file; and manual calculating the percentage of attendance per week/ month /semester. Hence, all these steps require duplication records, time and human efforts in taking attendance with a strict attendance policy. This manual method needs to be taken in every class for each semester. Moreover, for large class sizes, this is very timeconsuming. Attendance Management System is a

software developed for daily student attendance in schools, colleges and institutes. If facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student.

2. LITERATURE REVIEW

The most important step in software development process This paper proposed an idea of recording attendance using biometrics (fingerprint) for tracking attendance and storing the data using LAN. This paper provides a brief description about the usage,accessibility, accuracy, affordability and acceptance of biometric (fingerprint verification) system. In this system the data is fetched from the individual in the form of fingerprint and then it is verified with the data that was stored in prior and marks the attendance of an individual. Finally the database is also obtained. This method provides high accuracy results and consumes less time but it is not cost-effective.[2] Web-based application developed for daily student attendance in departments within the university. It facilitates access to the attendance of a particular student in a particular class.[3] This system will also help in generating reports and evaluating the attendance igibility of a student. The system is not only improving the work efficiency, students' study and development, but also can save human and material resources.

3. PROBLEM STATEMENT

This system developed will reduce the manual work and avoid redundant data. By maintaining the attendance manually, then efficient reports cannot be generated. The system can generate efficient weekly, consolidate report based on the attendance. As the attendances are maintained in registers it has been a tough task for to maintain for long time. Instead, the software can keep long and retrieve the information when needed. This application is built for automating the processing of attendance. It also enhances the speed of performing attendance task easily.The Student Attendance will be based on the department and section. According to the

department wise and section wise the attendance will be marked for the students.

4. OBJECTIVES

The objectives of the system are

1. To reduce manual work to great extent.
2. To implement application based on android for attendance management system
3. To keeps track of daily attendance of student.
4. Attendance sheet transfer
5. To send pre-recorded text and voice call to absent to student
6. To test and validate the results.

5.EXISTING SYSTEM

In the Existing system Colleges have to manually maintain information regarding College attendance. Information relating to student details and daily attendance have to be maintained separately. Provide a simpler method to store and access information related to attendance in mobile applicion. Provide a simple interface which will be easily used without much training. Reduce paperwork and make all related information accessible easily.

6. PROPOSED SYSTEM

Our system focuses on creating user friendly Android app for an Attendance. The app will be installed on the android smartphone of a user. It provides interface to a teacher/admins who requires minimum details of class/students for marking attendance of a class/students.As a result, the system will be integrated from the central database and the control system (automation system) can monitor the activities of lecturers and students.

7. SYSTEM ARCHITECTURE

Following Fig.shows the general system architecture of the application wherein the the user and the admin interact with the device which fetches the data from the database.This project can play a vital role in providing solution for tasks of handling attendance that are critical to handle manually, by reducing efforts. The teacher to take attendance in the app and then the data is automatically synced with the school's database, then if the student is absent then respective parent will get message and pre-recorded voice call. The teacher can also get the monthly report of attendance sheet in desired format.

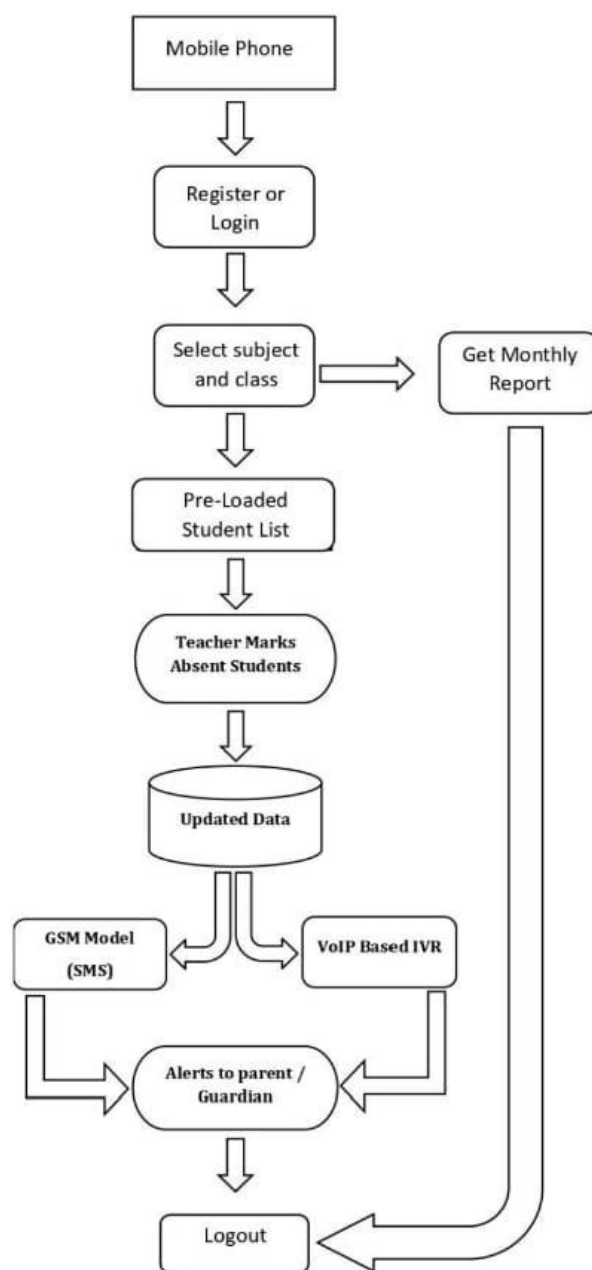
Register,Login and Logout

The Staff can open the app and tap on the "Register" button. Fill in their name, email, and password and

details is updated in the database.After registering, to login in the mobile application, the teacher should enter their username and password and after taking attendance, the teacher should tap on the "Logout" button,to logout.

Details

This block contain the details of teacher i.e. their subject, timetable,etc. who can add student and its details like name , education, address, phone number. year of studying, department of studying, pass-out year,etc.



Attendance

Once login in application staff can select their subject then department and then class of which they have to take attendance. Student list will appear with initially with green radio button, staff just have to tap on absent student and green button will turn red which means student is absent. After clicking on submit button the attendance will be submitted of that day. Teacher can also get monthly report in required format by clicking on get monthly report button.

Global System for Mobile communication (GSM)

After taking attendance of students, when data is saved in database the app will configure the absent student list and using GSM the pre-recorded text SMS is sent to their parents on their phone number which is already added in student details by using android device

Interactive Voice Response (IVR)

An IVR system can also be used to make outbound calls. It can automatically dial the phone numbers and play a recorded message. List of absent student will be fetched from database and is used to tell the parents that their child is absent for particular lecture.

8. IMPLEMENTATION

The attendance module is used to track student attendance. and view attendance history of months that is difficult to handle manually. Student list will appear with initially with green radio button, staff just have to tap on absent student and green button will turn red which means student is absent. After clicking on submit button the attendance will be submitted of that day. Teacher can also get monthly report in required format by clicking on get monthly report button.

- Mark the attendance
- View the attendance
- Get monthly report

Input :- Student list of specific class

Process:- Mark attendance

Output- view marked attendance or monthly report

Working

Teachers can mark the attendance by selecting the section they want to take attendance for. Teachers can also rectify the attendance of a student if it is marked incorrect by chance of any student. The marked attendance report can be taken of any month teacher wanted.

11. Application areas

1. Colleges
2. Universities
3. Private Institutes and coaching center

CONCLUSION

This project has resulted in development of a cross-platform mobile application which helps instructors and students to quickly record attendance. It also helps to save faculty time by exporting the attendance to a well-known format (csv) digitally. This application mainly focuses on educational institutes use cases and can be further improved to support any type of institution where attendance is still manual.

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