Student's Attendance Tracking System for Parents

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Abstract:
Development of an attendance tracking system for colleges in order to notify parents and students about student's attendance record. This system will have a web and mobile application by using which professors can take digital attendance and the record will be automatically shown on parents and students app. This system will also have statistics of the lecture taken by professor and students attendance record. This system will help the professors to take easy digital attendance and will help the parents to easily track their student's attendance record.

Keywords: Attendance manager, Attendance tracking system for parents, Digital Attendance system for colleges, Parents Application for tracking student's daily attendance, Safety App for girls and college students.

I. INTRODUCTION

According to most of the universities in India the students need to manage a minimum of 75% attendance in each semester (semester pattern) or in a year (yearly pattern). Colleges need to collect and store attendance record of every students. Many students tend to miss lectures for different reasons. Absenteeism is a significant problem at many institutions of higher learning (Romer 1993) and a major concern for educators (Devadoss and Foltz 1996). Being disciplined in attending lectures is a very important behaviour which is taught from the school time itself. Also after a student graduates and start working, the student is expected to be punctual in his/her work. We found that because of the sudden freedom in ownership, which the students get after passing 10th grade, they tend to take this opportunity in a negative manner. Many students start missing lectures because of this freedom. There are many reasons why students decide not to attend lecture, like quality and clarity of lectures, deadlines for assignments of other classes, inability of professors to engage students (Leon L. Robert, Jr. 2007). The students need a care of observation so that they know that somebody has an eye on them which will restrict them from taking wrong decisions. Parents play a crucial role during the educational life of the student but unfortunately no proper system has been built yet for effective involvement of parent in college education. The literature reveals that parent's involvement in student's education improves outcomes in areas such as attendance, learning, behaviour and graduation rates. Involving parents in student's education is likely to enhance student's attendance percent and consequently support student's learning. Colleges are using various forms of technology to increase information sharing with parents/students, including e-mail, college website, biometric attendance system, however, this use is not consistent or widespread. The proposed system will connect the parents with the college. The digital attendance that the professors will take will be send to the parent's application where on they can check whether their student is doing the thing they are supposed to do at that time, i.e.attending lectures or being involved in other college activities.

II.PROPOSED SYSTEM: The proposed system aims at digitizing the attendance system by eliminating the traditional way of taking attendance on paper sheets. Another purpose of developing the system is to keep the parents informed about the attendance status of their children. A web and mobile application is built to connect the parents with the college. A web application or web app is a client-server software application in which the client (or user interface) runs in a web browser. Web sites most likely to be referred to as "web applications" are those which have similar functionality to a desktop software application, or to a mobile app. NodeJS is used to speed development of the web app for a mobile platform. A mobile application, most commonly referred to as an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet computer. Mobile applications frequently serve to provide users with similar services to those accessed on PCs. Apps are generally small, individual software units with limited function. Professors can take attendance through web application or mobile application. The attendance will be saved in the server, from where they can retrieve it anytime anywhere through the system. This eliminates the risk of losing data as all the data are stored in a secure server. And also it eliminates the paper work to be done by the professors in managing the attendance record. Notification and sms are used to notify the parents when their children's are absent. For notification the technology used is AJAX. AJAX stands for **A**synchronous **J**avaScript **and X**ML. In a nutshell, it is the use of the XML Http Request object to communicate with servers. It can send and receive information in various formats, including JSON, XML, HTML, and text files. AJAX's most appealing characteristic is its "asynchronous" nature, which means it can communicate with the server, exchange data, and update the page without having to refresh the page.

III. SYSTEM ARCHITECTURE

The system is developed to connect the parent with the college and keep them inform about the attendance record of the student. Using paper based attendance system makes it very difficult to generate efficient reports of the student details. As informing parents on a daily basis is a difficult task for the college. Proposed system uses notification to inform the

parents easily. The professors has authority of taking daily attendance. The attendance is stored in a secure server. The system generates attendance report. Proposed system is developed in such a way that the attendance should be allowed to take only by authentic professors. The records can be updated only by the professors and no one else. When the professor saves attendance the record is sent to the Database (server) through the central control unit. The record can be retrieved anytime through the system. The System then displays the record to the parent and student application. The whole process is automated and every users can use the system in their own time.
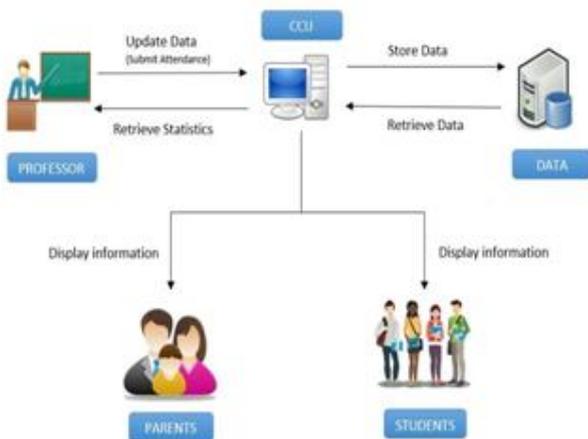
Specifications of the system:

1) Teacher module:
- The system is able to record student's attendance per semester/year, and manage the records.
- The system generates statistics of the data.
- The professors can retrieve the statistics in statistic module.

2) Student module:
- Student's module is linked with teacher module.
- Students can view their attendance record per subject.
- Students can view the statistics of their attendance per subject.

3) Parent module:
- Parent can view the attendance record of their children.
- They can view the statistics on daily basis and also overall attendance per subject.

IV. CONCLUSION

This system is developed to make it easy for parents to track their children's attendance record. So we have come up with the system in order to digitize the traditional attendance system. The system will eliminate the paperwork and will generate records efficiently. This system will automate the process of sharing information and student data with parents. The system requires users to register for using the services. Professors need to take attendance in the application and the system allows the parents and students to view the records. The system also allows the professors, parents and students to view the statistics. Because of this system the numbers of students not attending lectures will be reduce. So the system is helpful for parents as they can monitor their children's attendance.

V. REFERENCES

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