Smart Student Attendance System (S2A)

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ABSTRACT—In our system, Android device will be used for taking attendance of students. This android application will remove the need for manual paper work and handwritten notes, so this application can be said as providing aid in decreasing administrative burden on staff in terms of handling all the documents. Using this application faculty can take the attendance on android device. Admin, HOD and faculty can have own login for accessing this application. Faculty has not yet taken attendance in particular time slot of lecture. Student can also view their own attendance status. In our application faculty cannot change the attendance record after taking particular attendance record, those rights are only given to the higher authorities of the institute. Student can also view their own detail.The Attendance is collected by android device which will taken by the faculties. In our system there is need of internet to connect with the server. In our proposed system SQL server database as a back-end and Android platform as a front-end.

Index Terms—Attendance, Smart, Student, Track.

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I. INTRODUCTION

In the educational environment student attendance is very important task for student as well as for the faculties. Student Attendance of a higher education which is typically time consuming , repetitive job, inaccuracies of counting percentage of attendance per student. So this task becomes burden for faculties. It is very time consuming procedure. Normally in general scenario the attendance procedure becomes headache and time consuming for faculty. It increases the work load and paper work.

This android application will remove the need for manual paper work and handwritten notes, so this application can be said as providing aid in decreasing administrative burden on staff in terms of handling all the documents. Using this application faculty can take the attendance on android device. Admin, HOD and faculty can have own login for accessing this application. Faculty has not yet taken attendance in particular time slot of lecture. Student can also view their own attendance status. In our application faculty cannot change the attendance record after taking particular attendance record, those rights are only given to the higher authorities of the institute. Student can also view their own detail.

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II. Literature Survey

Some android application helps people to gain information related to attendance which reduces the paper work or manually attendance system. Such applications are explained below:

1. Attendance

Attendance is an application for faculties that want to take attendances in their class rooms using their mobile or android devices [1]. Attendance android app is the first beta release of the application thus expects some rough edges here and there.
Using Attendance application we can create courses, terms and course occurrences; we can create groups of students with various schedules; we can add students to groups; and then finally take attendances of the students [1]. Attendance status can be organized for each occurrence and are present, absent and late by default.

2. K12 Attendance

In K12 Attendance app lets faculty enter their student's attendance and then check if their student has any fail to notice attendance in the last 10 days. It is great for entering attendance while faculty and student are on the go.
We require having a K12 Online School (OLS) Account in order to use this particular application.

3. Attendance Traker

This Attendance tracker android app is used for taking attendance in various events. In this android app the attendance is not only "present" and "absent" but also including the "unknown reason" and "Medical problem"status. And for all these statuses different symbols are used which provide it very good GUI.

4. Easy Attendance

This Easy Attendance is a authoritative and handy way to gather, collect and record student attendance. This android application provides a straightforward and spontaneous interface that allows instructors and faculties to easily confine and records attendance based records [6]. In this application class lists can be inserted manually or imported from a CSV file hold with a drop box or email.

5. Attendance Register

This android application Attendance Register provides a very simple and most efficient way for students or any of the people who wants to keep track of their day by day attendance in various Subjects or activities or jobs or events. By using this app managing attendance is very easy with the help of a user-friendly calendar feature.

6. Bunk manager

This app is very use full for managing the bunks hassle free and calculates attendance instantly without any other problem.

Table 1.1 Comparative statements from survey

Features	Attendance	K12 Attendance	Attendance Tracker	Easy Attendance	Attendance Register	Attendance/ Bunk manager	Proposed Approach
Requires Android Version	2.2 and Up	2.2 and Up	3.0 and Up	2.3 and Up	2.1 and Up	2.3.3 and Up	4.3 and Up
Time Synchronization with device time	No	No	Yes	No	No	No	Yes
Create Instances	Yes	No	Yes	No	Yes	No	No
Track Faculty	No	No	No	No	No	No	Yes
Calendar Feature	No	No	No	No	Yes	No	No

III. PROPOSED SYSTEM

In S2A(Smart Student Attendance) system, windows application will be used for the controlling and managing the system by admin only and android application which will be used for the taking an attendance by the faculty and view the attendance to student. This system will time synchronize. System will be also used for sending an absent message, a deadline email, attendance record related email, tracking the faculty etc. It will provide easy and quick access to all authenticated person. It is time synchronous system which is based on current time and to provide better control to administer. Only Admin have rights for any modification or changes into the system. Admin or Higher authority can track the faculty using this system. Admin or Head of the department can also update time-table and set proxy lecture. In our proposed system SQL server database as a back-end and Android platform as a front-end.

IV. CONCLUSION

There are too many software available in the market that are used for taking an attendance but the proposed system provides time synchronous facility which gives unique feature.S2A (Smart Student Attendance) system will be used for easily taking attendance of students by faculties which provides user-friendly interface with time synchronous feature. This system will provides many extra features like time synchronization, faculty tracking, set proxy, send absent message to the parents and student can also view their own attendance status. S2A application will be very useful for reducing the paper work and burden of the administrative staff.

V. FUTURE WORK

In Android Application future enhancement is to apply random pin number for security purpose. Due to it a provision as a facility can be provided that if any student has less attendance from 75% then it sent a deadline email to that particular student. Making attendance chart for graphical visualization using Pie chart or bar chart etc. If faculty not takes attendance during the specific time slot, then he/she receives notification before 10 minutes. Allfaculty memberscanuploadassignmentsandany other documentsregardingtheirsubjects. And studentcanalsopostsomeimportantdocumentusingthisapp.Theycanalsoask somequestionabouttheirstudy and getanswer fromfacultymembersaswellasfrom student. Allowingstudenttostay ontopof upcomingcollege event,workshopschedule,assignments, currentmid- semesterresultandmore etc.

VI. ACKNOWLEDGMENT

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