Android Application for College Management System

Nikhlil Jadhav[1], Bhupesh Singh[2], Kunal Lunge[3], Gopi Mali[4], Nilesh Patil[5]
Department of Computer Engineering
LGNSCOE, Nashik, India

Abstract:
Mobile technology is one of the vast technologies spreaded between people .The main motivation behind mobile technology is To connect people with each other. Mobile technology has introduced new Environment among student and teacher that can be used to improve todays learning system. Taking into consideration this promising setting, a study was undertaken to realize the impact of such an environment, made possible by the android platform, on the learning process amongst students. The proposed system will introduce and improve interactivity, accessibility, and convenience in the learning process. Overall notification to students will be sent from admin office through app directly. Any new notice for a particular semester will be uploaded by professor through application notifying to respective semester students. Application also includes logic to support above mentioned facilities to its students, however if the person downloading the application is not a student but an aspirant who has completed HSC and wants to know about the college then it only includes the advertisement of the college. Senior college toppers can also share their tips and tricks with other students via chat interface. Student's attendance is also monitored by the application.

Keywords: Android, Communicate, Circular, profile

I. INTRODUCTION

The design and implementation of the system is to provide service in institute and colleges. The system is to provide comprehensive student information system and user interface is to replace the current paper records. College Staff uploads attendance, results and college notifications through a secure, online interface using android devices. All data is thoroughly reviewed and validated on the server before actual record alteration occurs. The system plans for student user interface, allowing students to access tips and tricks as provided by their seniors. All data is stored securely on SQL servers managed by the college Administrator. The system decreases paperwork and time needed to access student records. Previously, college relied heavily on paper records for this initiative which had its own disadvantages. This system provides a simple interface for the maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information are scattered, can be redundant and collecting relevant information may be very time consuming. Our proposed system ensures to overcome these limitations. The paper focuses on presenting information in an easy and intelligible manner which provides facilities like online registration and profile creation of students, attendance monitoring, circular notifications, thus reducing paper work and automating the record generation process in an educational institution. There is an increasing trend for higher education institutions to be expected to monitor student records. This software generates reports on the results of research that considered the effect of attendance on student performance; surveyed planning students about attendance issues, shared the results with colleagues including agreement on a Departmental policy change, and assessed the approach academic staff should take towards poor attendance.

II. RELATED WORK

There is another part which is feedback, the student can give the feedback at anytime from anywhere to faculty. This feedback can be reviewed by the admin or the management committee of the institute through which the confidentiality of the feedback of the faculty can be maintained. This application is developed for daily student attendance in colleges and institutes. It can also be useful in an organization or company at a certain limit not the whole application. The system which is used nowadays has some drawbacks which need to be improved for better performance. The system through which the feedback is taken is not good enough. The views of each and every student are not expressed through these systems. As the technology is developed day by day we need to use this technology so we can get an efficient result in adequate time. For attendance management in the present system all work is done on paper. The whole session attendance is stored in register and at the end of the session the reports are generated. We are not interested in generating report in the middle of the session or as per the requirement because it takes more time in calculation. At the end of session the students who don't have 75% attendance get a notice. This is a very time consuming process. In the present system the result is viewed on the notice board. It requires lot of paperwork and is time consuming. Moreover, there is no system still present through which students can take advice from senior students. College cannot even provide urgent notifications to students in case of emergency.
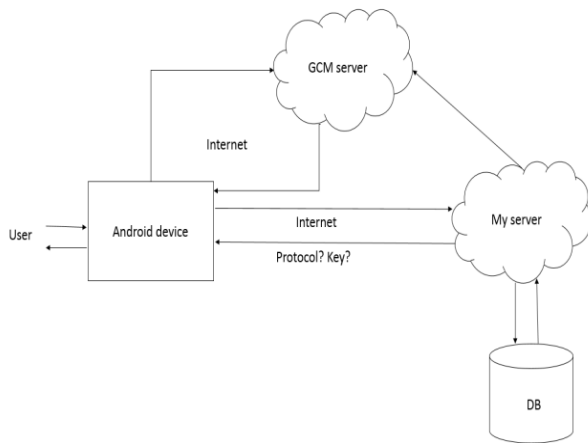
III. PROPOSED SYSTEM

Figure.1.System Architecture

The system architecture has a smart phone with android OS, a web services, a database server and the user as its components. The android smart phone or tablet must use network for internet connectivity to ensure better performance however 2G should also satisfy user request with added disadvantage of time lag. The user will login to the application through an android smart phone. The user-type is verified with the database server and access is given to the appropriate user. The web application also can be used to login and perform certain operations such as registration of users, generation of reports. The web application and the android application access data from a common Database server through the internet.

1. User Module: In this module we are authenticating the users by providing username and password. If username and password is valid then they will be taken to their screens. To identify user we are using unique IMEI number of android device with the number stored at server. When they get matched with each other system checks the status of that device and transfer the control to respective user-interface.

2. Database Module: The proposed system used MySql as its database because of their simplicity and flexibility. This module store every single information about students, faculty and model their data on specified operations. These operation can be storing student attendance, result data or can be authentication credentials.

3. Staff Module: This module is designed for staff, which use mobile phone to take attendance, upload result and upload college notifications. The entered admin details are encrypted and sent to server for verification. Only after successful authentication the operations are performed. If username and password cannot match, he/she can enter in to attendance page.

4. Attendance Module: The purpose of Attendance Entry Module is to enter the attendance using cell phone. In this module Lecturer takes the attendance using the cell phone. Lecturers select the branch, semester and year. After this session he enters in to attendance page. Here staff makes a mark on the absentees. Lecturer is only allowed to take attendance during their lecture time. In case of swapping of lecture or extra lecture,

HOD can allow other faculty to take attendance of students by swapping the logic of time-table permanently or temporarily

5. Communicate Module: in which student or Staff can convey a message or communicate with each other. In this the ordinary text can be sended as well as the various files like in format of Word(.doc,docx),Pdf(.pdf),text(.txt) are can be sended.

6. Image Gallery: Images related to institute can be seen here. All the images are uploaded by web server or admin

IV. PROJECT DESCRIPTION

The application is divided into 3 sub-groups-

[A] Admin :

1) Admin Registration The first step in this application is to get the HOD, staff members and teaching faculty to register. They need to first register their phone's IMEI number in the database. The respective person will then provide his or her phone's e-mail id and password for registration. An OTP would be then sent via e-mail address on the phone by the admin or faculty.

2) Admin login :After registering the admin is allowed to log in. He or she can now view admin homepage where there are options to take attendance, upload results, send notifications to student. He can also view the attendance taken and uploaded results.

3) Update gallery : Admin can add pictures to gallery this image goes to image gallery. this images are visible to student as well as teacher

[B] Teaching staff:

1) Uplode circular: Through this a staff cans uplode a notice to student. it will make easy to retrieve important notice like exam or holiday can be delivered to student

2) Uplode Attendance: Teaching faculty can show attendance of students. So student will know his attendance. and also he is passing a attendance criteria or not

3) Communicate: In this the staff can uplode important notes or convey any message to student. or staff can message students

[C] Student:

1) View Attendance: Students can view attendance uploaded by the faculty or HOD. They receive a PDF file and can view it anytime
2) Communicate: Student can also communicate with each other and send files
3) Check gallery: Images can be seen by student
4) View circular sent by teacher: Notices are sent to the students by HOD or admin. Useful information, college notices, important announcements are received on students registered account. They can view it anytime.

V. ADVANTAGES OF SYSTEM

1. It overcomes the limitations of the web based system as our proposed system is developed on Android OS.

2. As the current system is manual it does not require any sophisticated training for the User of the system.

3. Students do not have to visit the college notice board every time

4. No chance of the mistake as calculations for attendance will be automated.

VI. CONCLUSION

An Android based mobile application for College Management System is presented. The application offers reliability, time savings and easy control. It can be used as a base for creating and enhancing applications for viewing results, tracking attendance for colleges or any workplace. Students and their parents will also view attendance and curriculum details using this application. Also students can view details, notifications anywhere and anytime..

VII. REFERENCES

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