

College Interaction with Parents using Android and Web Application

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Abstract— In the recent years the Android Technology with web services has brought many drastic changes in the mobile application development field. The creation and management of accurate, up-to-date information regarding a student’s academic career is crucial for the colleges. Now-a-days the information to parents regarding their ward is provided through post cards or SMS, but these techniques are very time consuming and lengthy. The application provides a solution through a simple interface for maintenance of student information and also helps parents to get detailed information regarding their ward such as attendance. This application is created to show the attendance of a student to their respective parents directly on their mobile. Each individual parent will be provided with the details of his/her ward only.

Key words: Android Technology, PHP, MySQL, Student Information



Fig. 1.1 Android Technology

I. INTRODUCTION

We have seeing over the years that the process of important notification about academics of the students has been carried out manually almost across all educational institutions. The process is not only time consuming but also inefficient. This existing system requires a manual work of writing notifications, taking printouts, displaying it on notice boards and also requires students to watch periodically. This application in automating the existing manual system. This is a paperless work. It reduces man power required. It will provides accurate information always. Here staff can upload various data such as attendance, marks,etc with the excel sheet. Hence all years together gathered information can be saved and can be accessed using application at any time. This system is essential in college. All the administrator, HOD, parents, faculty can get the required information without delay. As this application is only made for the general purpose it can be generalize to big scale use such as in colleges, university and even distance education can be benefited from this application as this app can provide all related information according to the ward without direct contacting the staff. Features like video calls between the staff and parents can also be added to this application. In future we can also add the feature like paying the fees of the ward.

Here we have used the two main technologies for this complete system i.e for web sites we have used PHP (Hypertext Preprocessor) Language with HTML, HTML5 and CSS. Android application is created using the android technology.

II. LITERATURE REVIEW

Isbudeen Noor Mohamed, Syed Ajaz, Ahmad Tasnim Siddiqui, & S. Mohamed Idhris , have proposed the work in Student information report system with SMS (SIRS). They have developed the system for the purpose of sending regular reports to the student’s parent about the activities of the student. SIRS consists of five modules which can be useful to work with the system in a simplified manner. Login module provides the authentication to the system and creation of new account for a staff. The access is available to the staff only and not to the student. Student Information module in [2] is used to manage student data from the system. Any information related to the student can be manipulated using this module.

According to *Mihal Brumbulli, Blerina Topciu, Arbora Dalaçi*, in SMIS: A Web-Based School Management Information System proposed that web applications are popular due to the ubiquity of the browser as a client, sometimes called a thin client. The primary goal of their application is to offer a suitable interface to its users in order to simplify and reduce the time needed for information and procedure management relating to different school activities. The system is designed for three categories of users: director, teachers and secretary. Their aim is to present a mostly complete view of their application focusing especially on the design process.[4]

Amita Dhale, Madhav Mistry, Tushar Zore , in [3] have proposed the system application which provides a generalized solution to monitor the various works that are carried out by a College for managing it. “Smart Connect” provides a simple interface for maintenance of student information. Smart Connect deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It will also have faculty

details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration.

Ms. Shweta A. Shaha *et al* [7] proposed the Attendance system produces an automatic way to provide better performance and efficiency than the traditional method of monitoring student. It helps to save time and money by eliminating a great deal of manual processes involved in attendance and leave entry and calculating hours attended.

III. PROPOSED METHODOLOGY & DISCUSSION

There is a need to bridge the gap between teachers and parents by designing an android app to provide timely and critical student information to the parents. It is a standalone Application and web sites can be used in various institutions like schools, colleges, etc. "Attendance at your tip" is a android application created to know the academic information of student. There are two kind of user who will be using our application student and parents where as the web site is created for the college i.e HOD and the teaching staff. Each one they got to login into the respected application and the web sites to access the internal system. Parents will be using the application through smart phone. College staff will get screen on web site to add details of students attendance and marks structure. HOD can post any notification on the system which then gets visible to parents. An option to parents to directly interact with the class incharge is provided by providing the name, mobile number and email of the respective class incharge of their ward on the mobile application.[1]

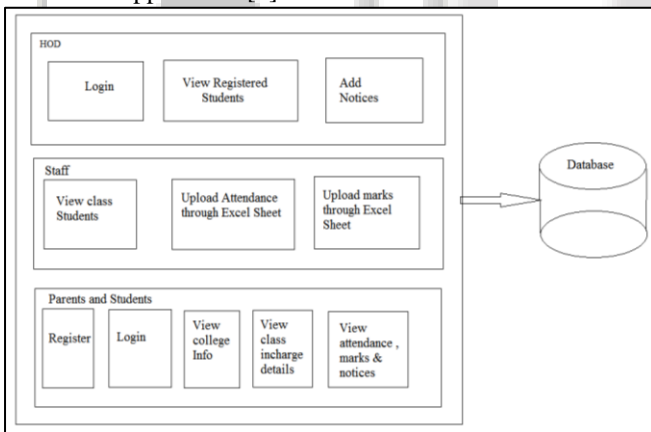


Fig. 3.1 System Architecture

The Proposed System tries to

- Providing the online interface for faculty and Parents.
- Increasing the efficiency of college record management.
- Reduces time required to deliver notices.
- To make the system more secure.

The Proposed system can be categorized by the following modules:

A. Admin Login:

Admin can view attendance/marks of all students. Also can view all student informations. Also HOD can approve the staff. Fig 3.2 shows the flow chart & fig 3.3 shows the screenshot after the admin login.

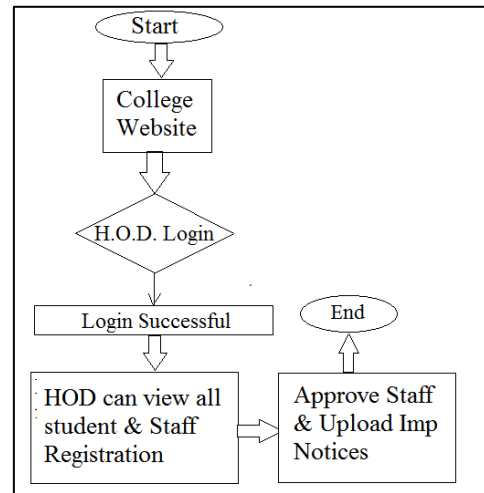


Fig. 3.2: Flowchart of Admin Login

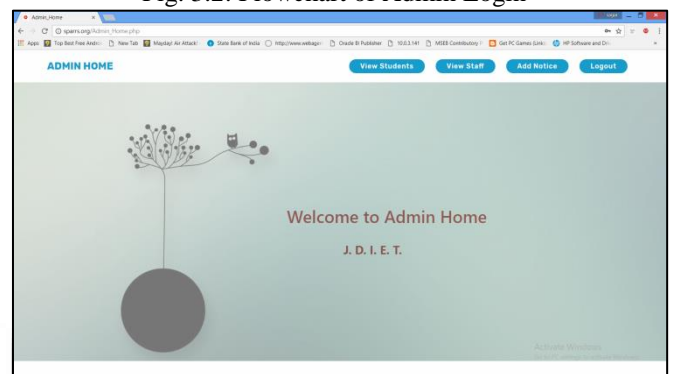


Fig. 3.3: Screenshot of Admin Login

B. Staff Registration:

Staff can register here for the further process. They have to fill all the fields given in this registration. Below figures shows the flow chart and GUI for the staff registration.

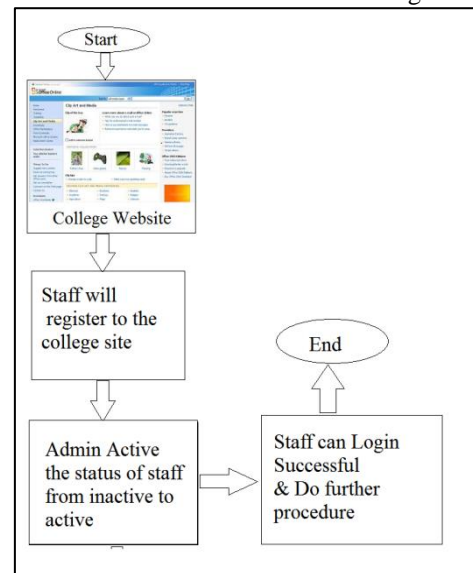


Fig. 3.4: Flowchart of Student Registration

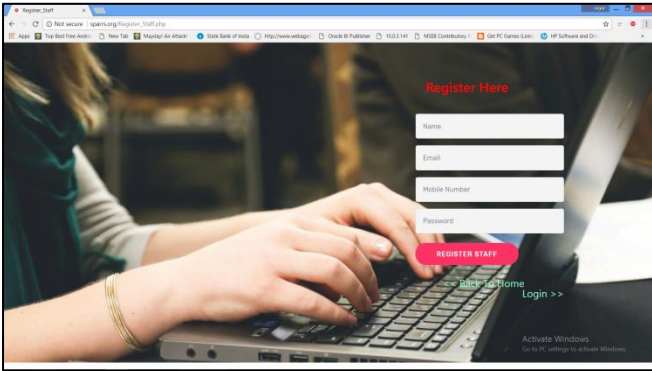


Fig. 3.5 Screenshot of Staff Registration

C. Staff Login:

Staff can manage attendance/marks of student of class. Also they can manage registration and approve/reject registration of the student who is not the student of their class. Staff can also view all student information of their class. GUI is shown below in fig 3.7. Staff will upload the marks and attendance of their class through the excel sheet.

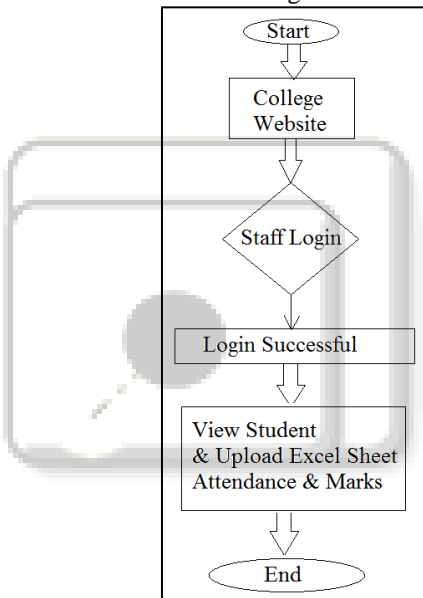


Fig. 3.6 Flowchart of Staff Login

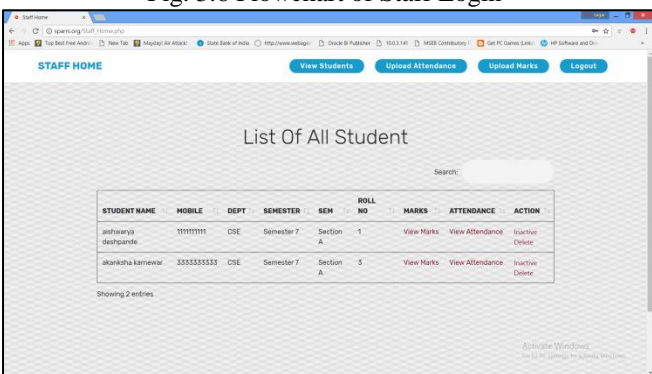


Fig. 3.7: Screenshot of Staff Login

D. Student Registration:

The student has to download the application “Attendance at your tip” from the Google Play Store. After downloading, student will register with their detail & correct information providing his/her mobile number with the parent’s mobile

number. After the successful registration both the parent and the student can login through the application by using their respective mobile numbers and the password entered by the student while registration process.

First figure showing the flow chart, it makes clear the registration process. Next figures show the GUI of registration from the mobile application.

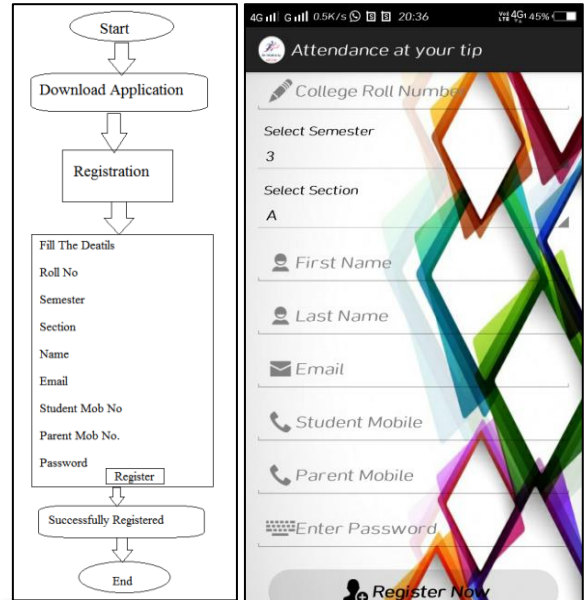


Fig. 3.8 Student Registration

IV. RESULTS & ANALYSIS

A. Parents and Student Login :

The parent and the student can login through the application by using their respective mobile numbers and the password entered by the student while registration process. After the successful login they can view the attendance & marks. Notices uploaded by the HOD can also be visible to them.[1]

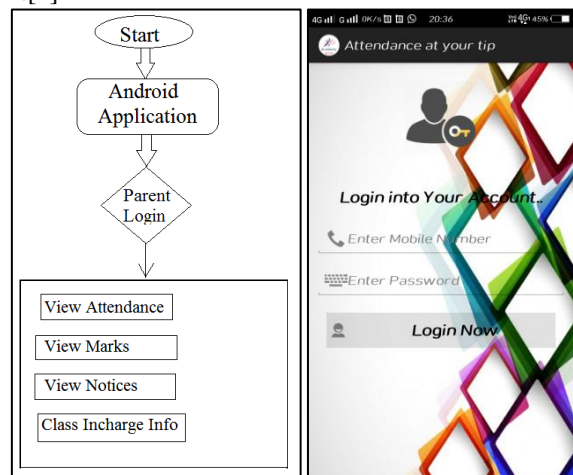


Fig. 4.1 Parent & Student Login

B. Report Generation:

It includes generation of attendance reports for lectures as well as practical’s for individual student for each subject. Other reports such as academic details record etc. can also be generated. These reports can be sent to the his parents.

Parent can see attendance and marks of their ward directly on this mobile application as shown in below figures. Flow chart describes how the database is get filled and android access that database in the mobile application. Fig(b) shows the GUI for the report generation with the graph of attendance. Attendance below 75% is shown in red and the above 75% is shown in green color.

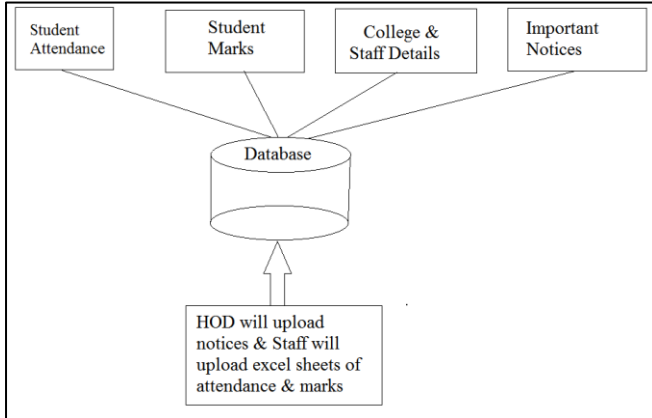


Fig. 4.2: Flowchart of the report generation

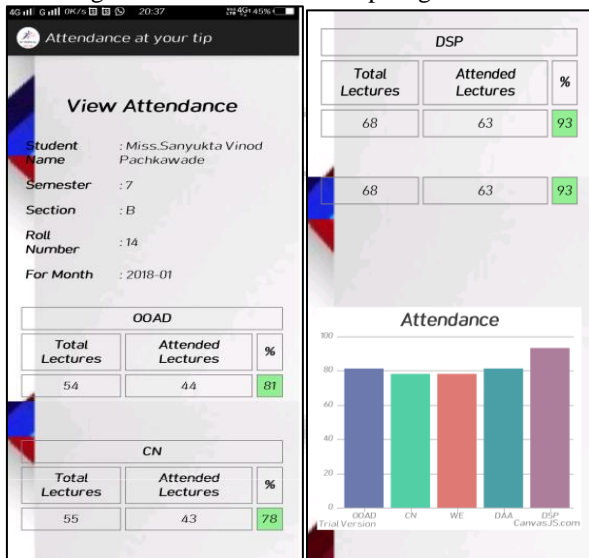


Fig. 4.3: Screenshot of Report Generation

V. CONCLUSION

This application is automating the existing manual system. This is a paperless work. It reduces man power required. It will provides accurate information always. All the student's together gathered information can be saved and can be accessed using this application at any time. This System is essential in college. All the administrator, HOD, parents, faculty can get the required information without delay. As this application is only made for the general purpose it can be generalize to big scale use such as in colleges, university and even distance education can be benefited from this application as this app can provide all related information according to the ward without direct contacting the staff.

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