

Android Based Student Information System

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Abstract— In today's world, everything is dependent on technology. From small to large work, we use technology. But still in some school and colleges, the attendance is taken on paper or sheets. Also other information related to students or teachers are stored taken on papers. This is very tedious job. Also lots of time get wasted due to these activities. So there can be risk of information loss. Hence this is also need to be updated with the technology. So it will be helpful for schools and colleges to maintain the records. So "Android Based Student Information System" can store student information and also used for marking students attendance. It has three modules namely Admin, Teacher and Student. So this can be very effective for teachers. The overhead can be reduced from the teachers as they need not have to waste their time by taking the attendance on paper or storing the information related to student on paper. Also it will give the students, the information about themselves. So this will be useful application for both teachers and students.

Keywords— Android, Firebase, Java, Student details, Attendance, Marks etc

I. INTRODUCTION

Earlier technique of keeping details was on paper. Each and every record is taken on the paper. But this technique consumes lots of amount of time as well as human effort. Also there is wastage of papers as well as money. So there must be an upgradation in the current system to remove all the drawbacks of the system. So we are developing an "Android Based Student Information System" application. An "Android Based Student Information System" would be a new way of attendance management and marks management that would achieve efficiency on processing student information. It also stores all the personal details of the students. It can be used to store teacher's information as well. So it will be beneficial for both teachers and students. Here all the details of students and teachers will be stored on the server. Because of this automation in the system, time will be effectively managed and also reduce the human efforts.

In our project there are mainly 3 modules as:

1. Admin
2. Teacher
3. Student

As we know in any institute or organization Admin is the main component as he holds all the rights of the systems. Here also in our application, admin is given the highest priority to provide the control over teachers and students. In this application, admin has all the access to the application. He can add both students and teacher as well as view particular students/teachers information. After the admin, the next importance is given to the teacher. Here teacher has few access as compared to admin to maintain the difference between admin and teacher. Teacher's only do the things related to the student. They are not able to add other teachers. And last module in the application is student. Here student can only view the details related to them. They can view their attendance in subjects, can able to view their academic marks as well. As student will be

given limited access they cannot be able to perform any modification to the data in the system.

II. RELATED WORK

It is observed in [1], Student Information System manages all types of student details, academic related reports, college details, batch details, attendance details. It tracks all the details of the every student from very first moment to the end of the course, which would be utilized for all kind of reporting purpose and all these information will be available through online interface embedded in college's student record management system. So by using this application the students are able to view their academic details in fraction of seconds. But in this system only attendance percentage is directly added to the record. It is not capable of taking the attendance at the time of the lectures or practical. So we get this idea of implementing the real-time attendance taking mechanism in our system to make it more attractive and efficient.

In [2], the authors proposed a system using android OS, in this attendance information is available 24*7, significantly reduces paper wastage. This mobile application will maintain the student's attendance. This is the application in which the attendance is taken at real-time. So this will be very efficient for the teachers to mark the attendance. But this application is designed only to take real-time attendance and to store the attendance information about student. It cannot be able to store the other information like academic information or personal information related to the students. So we are developing the application by removing drawbacks of both the application to make it very much efficient for use and can be able to maintain all the records of the students as well as the teachers.

III. PROBLEM STATEMENT

To avoid all the drawbacks of the existing system we are going to develop Android Based Student Information

System application, for keeping all the details of the student as well as for taking daily attendance in school, colleges and institutes. Also it will be helpful for teacher as they do not have to use the paper sheets to take the attendance. So their workload also get reduced accordingly. It will be helpful for students to view their attendance of every subject online. Also they can view their unit test marks online. They can use this application anywhere to view their academic details.

IV. METHODOLOGY

This system mainly consist of 3 modules as Admin, Teacher and Student. Each one of them has given a separate rights. Admin has all the rights of the application. He can perform all the operations related to the teachers and students. Then teacher has given less rights as compared to the admin. Teacher can only perform operations related to the students. At last student has very limited rights. Students only can view the information related to them. They are not able to perform any modifications related to the data. Because if such thing happen then they can modify their own data as they wanted. Hence they have given a limited access.

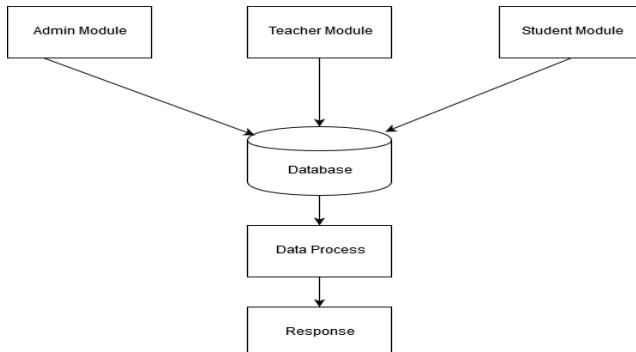


Figure 1. Block Diagram

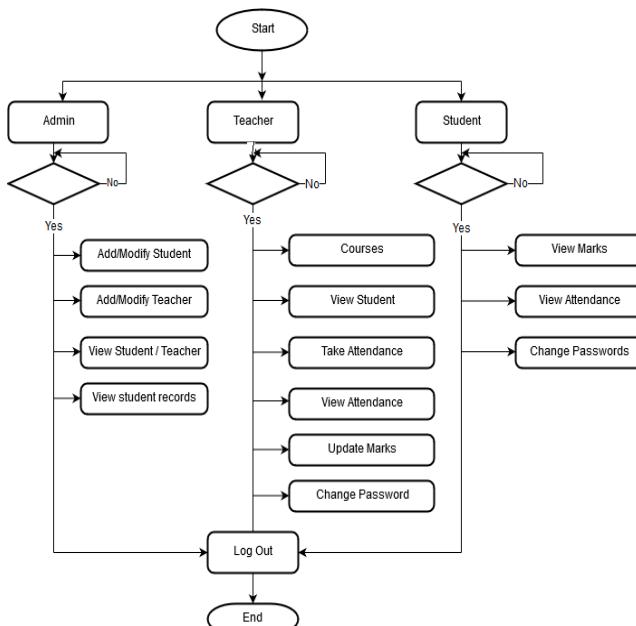


Figure 2. Flowchart

Figure shows the flowchart of the system. It shows how then different users of the system can perform the various actions. It shows various operations that can be perform by the users. As each user has given a different access rights, each user has different types of operations.

V. RESULTS

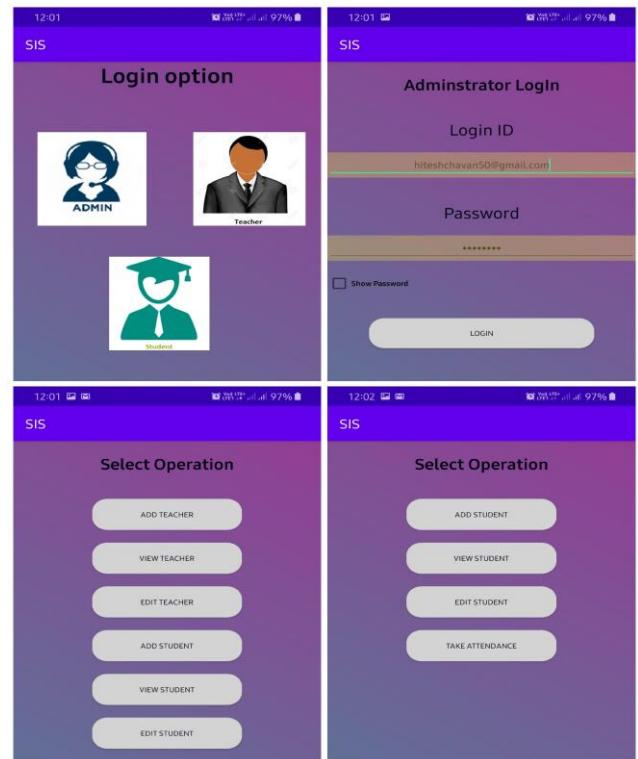


Fig.3

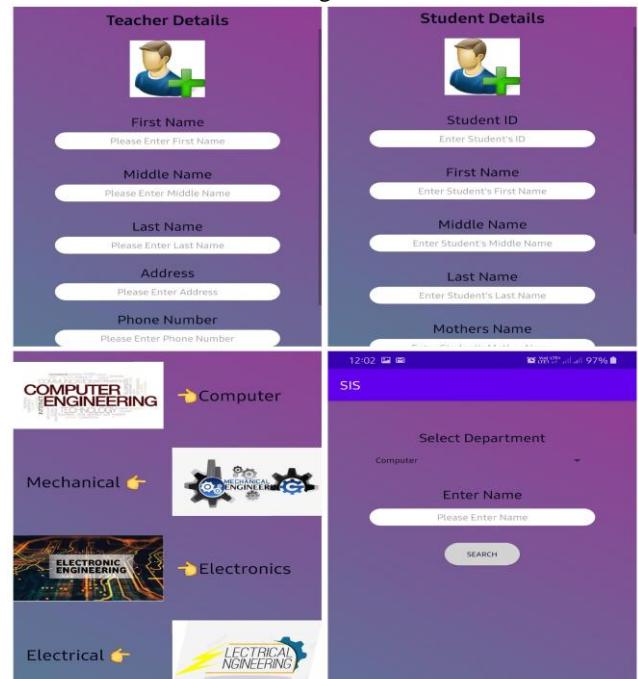


Fig.4

VI. CONCLUSION

As now-a-days works in many colleges and school goes manually, so this application is developed to maintain the information of large number of student. As it is user friendly, everyone would be easily interact with this application. The design and implementation of mobile application named "Android Based Student Information System" leads to make the system very efficient as well as reliable and also provide very well experience to all the users of it.

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