



AUTOMATED STUDENT ATTENDANCE AND ACADEMIC TRACKING SYSTEM USING FACE RECOGNITION TECHNOLOGY

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ABSTRACT: Attendance plays a vital role in determining a person's activeness and attentiveness. Whether it is a school, college, or workplace, attendance is often required to keep track of students and employees. This system is an Android application that allows teachers to take attendance of students registered in their class. The online attendance system enables the marking of attendance for students who are present in the class. Features such as one-time, one-screen attendance help in avoiding proxy attendance. Attendance is important not only in schools and colleges but also in universities and workplaces. The output obtained from using this system is highly effective. This updated method provides an easy way to maintain students' records properly and efficiently.

Keywords: *One Time One Screen, Intelligent Notice Board, Institute Notice, Course Material, Performance.*

I. INTRODUCTION

Attendance plays a very important role in a student's life. Attendance is important because students are more likely to succeed academically when they attend classes consistently. If students remain constantly absent, it becomes very difficult for teachers to build a bright future for them. Technology has reached a very advanced level, helping people sustain and achieve higher goals. Modern technology also provides students with quality education through effective learning methods, and smart devices have become an essential part of life, especially in higher education. This has enabled the development of smart attendance systems. In this system, features such as "One Time One Screen" are used to prevent proxy attendance.

Additionally, various features such as syllabus access, notifications, and other academic resources are provided to help students in their studies. Students can access everything they need in one place.

II. METHODOLOGY

Our project is developed using Android Studio, HTML, and XML. It is supported by various concepts and methodologies that were formulated during the initial study and visualization of the project. The project is strongly supported at the back end by Java, a powerful object-oriented programming language. The user interface is developed using Extensible Markup Language (XML). The main objective of this project is to improve the attendance system that has been in use for decades. It aims to develop an application that is



portable and can be easily carried into lecture rooms, replacing the traditional attendance register.



Fig 1 Smart application for students
Existingsystem

The existing system may be a manual entry of the scholars. The attendance is being disbursed in hand written registers. it's a tedious job to take care of the record for the user the retrieval of the data isn't as easy because the records are maintained within the hand written registers. The human effort is more during this system and it requires correct preyonin put the respective field.

Proposed system

The proposed architecture is planned to be more productive than the manual architecture. Here our project aims to cut back the paper work and saving time to get accurate results from the attendance system. The system provides with the simplest computer program and no malpractice is entertained like proxy. Efficient reports are going to be generated by using this android-based application. Significance Reduction within the use of pen and paper

- Everything is monitored digitally.
- A tiny & low contribution of ours in saving trees

- Time are reduced and straightforward conduction of tests, assignments and notes facilities.

Android Features

In the project the main function is, we provide one time one screen facility for the user where one student can login from one device

- Stoner Interaction Android Provides beautiful, attractive and cozy user commerce.
- Connection for Android supports different connectivity technologies like Bluetooth and Wi-Fi.
- Messaging SMS, MMS and android pall to device messaging frame is accessible in android package
- Web cyber surfer Cyber surfer present in android software package depends on web attack in mix with Chrome's V8 JavaScript machine supporting.
- Java support Utmost of the android operations are written in java language but there's an absence of java virtual machine within the platform of that DVM is presented. DVM is especially designed for android and battery powered mobiles.
- Multitasking Android supports multi-tasking, which provides strictness of running from one operation to a different or running different operations simultaneously.
- Paraphernalia Support Android supports video or still cameras, touchscreens, GPS.

III. MODELING AND ANALYSIS

Android Studio has been used as a development terrain. Java, PHP and HTML are used as programming and scripting languages. While, MySQL has

been used as a Database operation system. WAMP garçon has been used as a local host. And CSS as a script for fine tuning the defenses appearance. 4.2 System Database of the proposed system consists of 5 tables druggies, scholars, courses, departments and attendance logs. As it shows the schema of that computer database.



Fig 2 Android features for students

Administrator Session

In this while entering the user's name and password, the system will redirect the admin in to the "Dashboard" page. It contains option for Department, Courses, Users, students and logout All the given buttons are used for adding, deleting editing; department, course, student and user as per the format. The proposed system is supposed to that the current academic system consists of four classes, and two semesters

System Users

There are three types of users.i.e Administrator, Reporter and guider. Any user who wants to use the attendance system must have user name & password which admin can grants it. So,

it confirms that it is a authorized user Attendance system has mainly three parts, i.e first part is admin session part, where one can login to system and edit on all database tables. The second part is that the instructor session, where one can login to system for marking attendance and third part is reporter session, that also login to system where attendance can be viewed as well as report all these tasks. When user open the system login page will show. It consists of three types mainly Text fields, button and labels. The Two text fields for username and password.



Fig 3 Students attendance system

Instructor Session is for taking the attendance of the students for allotted department and class, instructor must be logged in the system. After entering the username and password of the instructor, the system will redirect that instructor to "take attendance" After selecting a department, class, & semester, and the current course, all names of students for the allotted class will appear in students list This makes the instructor aware about the total no of present students and absent students in the class. Reporter session is the third user of the system i.e Reporter. This user responsible for extract a report



of attendance, for a particular course, the student in specific course.

IV. RESULTS AND DISCUSSION

In this research, we build a coding for attendance system to be run on android smartphone, that will be integrated with student attendance system. here we choose android smartphone because the number of android user is very huge in the world . Attendance Application on the Android Device This application runs on the android device associated with attendance system application on the admin side through an internet connection.

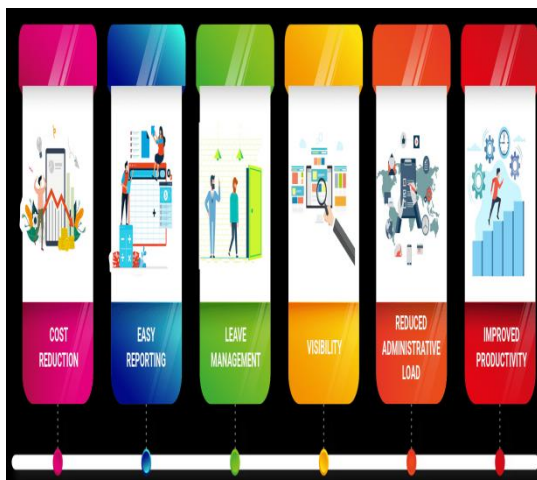


Fig 4 final view of android application

This application will take the information of user, such as the user's "ID Password" that will be available on the android device. The user's device that will be matched with a database on the server, we also can retrieve the data. With this method, it will improve the accuracy of the attendance system because it takes a position, the date, and time in real time. With this particular method students can mark the attendance on the given platform the use of user identification by" one time one screen "method will also reduce fraud because the user cannot ask

friends to do attendance. There are several menus on the main screen of applications, such as About Application and Registration, which is classified as a second menu bar menu. Then there are two menus again which a main menu is: Attendance and syllabus & Schedule created using the button. When users want to use this application, then user has to register the device and user information to the attendance application on the admin side, if the user has not been registered, the registration menu can choose to display the registration form. In order to send the information about the one time one screen, user has to send this through the application on the android device admin can also display data involving attendance timesheet management and perform longtime to the student through this application database such as students' personal information, log times, shift schedule, syllabus, active time and timesheet. We discuss all of them in journal separately with this paper.

V. CONCLUSION

In terms of efficiency, the proposed system provides an effective method of marking attendance compared to the traditional physical attendance system. Furthermore, it is a user-friendly system, as data manipulation and information retrieval can be performed easily with the help of computer programming. This makes it a universal attendance system that is adaptable and suitable for implementation in any educational institution.

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