

Smart Student Attendance Management System

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Abstract - Attendance management is important to every single organization; it can decide whether or not an organization such as educational institutions, public or private sectors will be successful in the future. Organizations will have to keep a track of people within the organization such as employees and students to maximize their performance. Managing student attendance during lecture periods has become a difficult challenge. The ability to compute the attendance percentage becomes a major task as manual computation produces errors, and wastes a lot of time. For the stated reason, an efficient Web-based application for attendance management system is designed to track student's activity in the class. Attendance Management System is based on web server, which can be implemented on any computer. In This application, PHP is server side language, MySQL and PHP is used as back-end design and HTML, CSS and JavaScript are used as front-end tools. In comparison with other traditional attendance systems, the proposed system provides faster, cheaper and reachable system for online student attendance and generate the attendance report automatically.

Key Words: Attendance Management System, Web Based System, Student List.

1. INTRODUCTION

Due to student's interest in classrooms, and whose is the largest union in the study environment of university or institution, so recording absence at a department having a large number of students in a classroom is a difficult task and time-consuming. Moreover, the process takes much time, and many efforts are spent by the staff of the department to complete the attendance rates for each student. So in many institutions and academic organizations, attendance is a very important criterion which is used for various purposes. These purposes include record keeping, assessment of students, and promotion of optimal and consistent attendance in class. As long as in many developing countries, a minimum percentage of class attendance is required in most institutions and this policy has not been adhered to, because of the various challenges the present method of taking attendance presents. The process of recording attendances for students was in the form of hardcopy papers and the system was manually done. Besides wasting time and taking efforts for preparing sheets and documents, other disadvantages may be visible to the traditional one due to loss or damage to the sheets-sheet could be stolen. In most educational institutions the attendance is taken manually. It is not only time consuming, but it is also unsecure and unreliable and it can be lost. Some institutions are using punch card for attendance while this

will be difficult for teachers to keep track of the large number of students because by using punch card, a student can help the other students or his/her friend to punch their card even the other student may be absent or come late in class, so it is not reliable.

It has been observed that all the methods have their drawbacks. In the first method, if a large group of students attends the lectures, checking and authenticating these students usually takes several minutes out of the lecture period and always reduce the topic coverage every other time. The second and third method also has limitations because friends of absent students always write down the names of their friends and even write these mini-tests for them as observed on several occasions when comparing handwriting on the scripts. These methods which have also been used by other lecturers and have placed many lecturers, instructors and their institutions at considerable disadvantages when it comes to attendance taking. To overcome these failing methods, we have developed a quality smart attendance management system for an academic institution.

The attendance is important because students are more likely to succeed in academics when they attend class consistently. It's difficult for the lecturer to build students' skills and progress if a large number of students are frequently absent. The main characteristics of my developed system is that it is web based, fully responsive and flexible. It can be accessed from any computer no matter where you are. Its purpose is to make a web based attendance software for all department to register the student details; their subjects, teachers, and related field. The daily attendance of students are taken automatically by selecting student name and program, If the student was present then the present check box is clicked similarly if the student was absent then the absent check Box is clicked instead of the present check box, and by clicking the save button information will be stored in database. The attendance report will be generated automatically without time consuming which is reliable and there will be not any mistakes.

2. RELATED WORK

Authors developed a fingerprint-based attendance system. The effort is very similar to but the presence of each student will be updated in a database and the data will be passed to the server using the Wi-Fi. This effort was for a college where SMS information will be sent to the parents of the students if a student is absent from a particular class. If a student is absent continuously for more than three days, a

message will pop up to the parents to meet the HOD automatically. The implementation of the attendance system based on RFID and GSM with respect to power saving concept was developed by some researchers. The effort of the researchers kept in mind the importance of power saving and also adequate record keeping. But over the years, there have been observations that swiping occasionally takes time and there are challenges of magnetic fields that affect the cards. The misplacement of GSM is another big challenge.

Web application attendance management system used SMS software technology to send SMS easily to student parent. The system can store in details all data about the students and those cares absent. The advantage of it using efficient techniques to store and update the student attendance and report in the Web Site rather than wasting the paper as well as decreasing the faculty's time also. Many desktop applications for attendance has been developed there are some examples: 1. Desktop application for attendance developed to take daily attendance of students. Then information of a particular class is stored by the operators that will be provided by the teacher. Saurabh KumarJain, Uma Joshi, and Bhumpesh Kumar Sharma developed the software. The technology which they used for their application is Language:-VB.NET and Backend:-MSAccess [3]. 2.Jainetal has developed a desktop application in which when the lecturer start the application then all registered lists of students of particular course will be displayed.

There is multitude developed Web-Based Student Attendance System using Radio Frequency Identification technology will significantly improve the current manual process of student attendance recording and tracking system, especially in a university or school environment because it is easy to connect data of internet. The system promotes a semi-automated approach in capturing the student attendance, i.e. by having the students to flash their student cards to the RFID reader.

Another set of authors designed, developed an effective and secure fingerprint-based biometric attendance device (ESFB2A). The device developed helped in reducing the workload and stress of inspecting each students attendance and calculation errors when obtaining the total attendance. The data from previous manual attendance data from another type of biometric device, the current manual based method and the fingerprint device developed were compared. The previous biometric device recorded a time of 13.81 secs while the newly developed ESFB2A recorded a

time of 13.08 secs. The average execution time for the other type of biometric device yielded 16 secs while that of the newly developed ESFB2A yielded 11 secs.

3. IMPLEMENTATION

3.1 HTML AND CSS

HTML stands for Hypertext Markup Language and CSS stands for Cascading Style Sheets are the crucial technologies for creating web pages. HTML supplies the structure of the page, and CSS the layout, for diversity of devices. Together with scripting and graphics, HTML and CSS are the fundamental of building Web Applications and Web pages.

3.2 PhpMyAdmin

It is an open source tool and also, it is free written in PHP, XHTML, CSS, and JavaScript planned to manage the administration of MySQL by using of a web. It is able to perform various missions like creating, modifying databases, tables, fields, executing SQL statements or managing and supervise users. PhpMyAdmin is being translated into 72 languages in order to make the usage easy to a wide domain of people and it supports both LTR and RTL languages.

3.3 PHP

It stands for PHP: Hypertext Preprocessor but, originally stood for Personal Home Page. Is a server side scripting language that designed for web development, as well as used for general purpose language. It was created in 1994 by Rasmus Lerdorf, in the present time the reference execution of PHP is produced by the PHP group. In January 2013, PHP was installed on more than 240 million websites, and 2.1 million web servers. The PHP code can be combined with several web frameworks and templating engines or simply it can be mixed with HTML code.

3.4 MySQL

SQL stands for Structured Query Language. MySQL is an open source Relational Database Management System (RDBMS); it is a popular database for use in web applications, and is a central part of the greatly used LAMP (Linux, Apache, MySQL, Perl/PHP/Python) open-source web application software stack. MySQL is used by many applications like, WordPress, Joomla, TYPO3, Drupal, MyBB, phpBB, MODX and other software. Numerous large scale websites including Google, YouTube, Facebook, Twitter, and Flickr are also using MySQL.

3.5 Screenshots

Student Attendance System

Home Class Subject Teacher Student Attendance Logout

Student List Add

Show 10 entries Search:

Student Name	Roll No.	Date of Birth	Grade	Edit	Delete
chetna Dakhore	6	1999-01-05	4th year	Edit	Delete
Monika Tambakhe	5	1997-03-30	4th year	Edit	Delete
shubham Uike	4	1904-03-01	4th year	Edit	Delete
Rutika Ekotkhane	3	2010-11-12	4th year	Edit	Delete
Pooja Patankar	2	1997-05-02	4th year	Edit	Delete
Vrushali Sawasokade	1	1997-05-02	4th year	Edit	Delete
Sonu Khadse	1	2002-04-11	1st year	Edit	Delete
Pratik Tambakhe	1	2002-12-05	2nd year	Edit	Delete
Ninad mundane	1	2002-06-12	3rd year	Edit	Delete
Parth Harris	2	2002-02-27	3rd year	Edit	Delete

Showing 1 to 10 of 20 entries (filtered from 10 total entries) Previous **1** 2 Next

Student Attendance System

Teacher Login

Enter Email Address

Enter Password

[Login](#)

Student Attendance System

Home Profile Attendance Logout

Attendance List Report Add

Show 10 entries Search:

Student Name	Roll Number	Class	Attendance Status	Attendance Date
Ninad mundane	1	3rd year	Present	2019-10-14
Parth Harris	2	3rd year	Absent	2019-10-14
Eshvari Gulhani	3	3rd year	Present	2019-10-14
chetna Dakhore	6	4th year	Absent	2019-10-16
Monika Tambakhe	5	4th year	Present	2019-10-16
shubham Uike	4	4th year	Absent	2019-10-16
Rutika Ekotkhane	3	4th year	Absent	2019-10-16
Pooja Patankar	2	4th year	Absent	2019-10-16
Vrushali Sawasokade	1	4th year	Present	2019-10-16
chetna Dakhore	6	4th year	Absent	2019-10-10

Showing 1 to 10 of 264 entries (filtered from 10 total entries) Previous **1** 2 3 4 5 ... 27 Next

Student Attendance System

Home Profile Attendance Logout

Profile

Teacher Name *	Kalyani Logie
Address *	Uthmaniyah Bly
Email Address *	kalyani.123@gmail.com
Password *	*****
Qualification *	ME
Class *	3rd year
Date of Joining *	2018-03-17
Image *	No file selected. Only jpg and png allowed

4. CONCLUSION

Attendance management is significant to all organizations such as educational institutions. It can manage and control the success of any organization by keeping track of people within the organization such as students to maximize their performance. In this work, the web based attendance management system is developed using PHP server-side scripting language and CSS,HTML, JavaScript for designing which is fully meet the system's goals. The proposed system offers the process of monitoring attend students, it aims to help the teacher in the classroom or laboratories to manage and record students' presence electronically and directly without the need to list on paper so it will save time and effort.

REFERENCES

- [1] O. Shoewu; O.M. Olaniyi; A. Lawson. Embedded Computer-Based Lecture Attendance Management System. African Journal of Computing and ICT (Journal of IEEE Nigeria Computer Section), 2011, 4(3), 27-36.
- [2] O. Shoewu; O.A. Idowu. Development of Attendance Management System Using Biometrics. The Pacific Journal of Science and Technology, 2012, 2(1), 8-14.
- [3] S. Kadry and M. Smaili (2010) "Wireless Attendance Management System Based on Iris Recognition. [4] Refit Samet; Muhammed Tanriverdi. Face Recognition-Based Automatic classroom Attendance Management System. IEE International Conference on Cyberworlds, 2017, 253-256, Chester, UK. Anitha V Pai, Krishna A, Kshama PM, Correa M. Web service for student attendance management system. www.ijarse.com. 2016 Mar.
- [4] Arbain N, Nordin NF, Isa NM, Saaidin S. LAS: Web-based laboratory attendance system by integrating RFID-ARDUINO technology. In IEEE; 2014. p. 89-94.
- [5] Srinidhi M, Roy R. A web enabled secured system for attendance monitoring and real time location tracking using Biometric and Radio Frequency Identification (RFID) technology. In IEEE; 2015. p. 1-5.
- [6] Arulogun O, Olatunbosun A, Fakolujo O, Olaniyi O. RFID-based student's attendance management system. Int J Sci Eng Res. 2013;4(2):1-9.
- [7] Kassim M, Mazlan H, Zaini N, Salleh MK. Webbased student attendance system using RFID technology. In IEEE; 2012. p. 213-8.
- [8] Ahmad BI. TouchIn: an NFC supported attendance system in a university environment. Int J Inf Educ Technol. 2014;4(5):448.
- [9] Benyo B, Sodor B, Doktor T, Fördős G. Student attendance monitoring at the university using NFC. In IEEE; 2012. p. 1-5.