

STUDENT ATTENDANCE MANAGEMENT SYSTEM

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Abstract

Over the years, most educational institutions have adopted manual attendance management. To overcome the problems of manual attendance, we have proposed a "Web-based Attendance Management System". The online status management system is based on a web server that can be implemented on any computer. In This application, PHP is a server-side language, MySQL and PHP are used as back-end design and HTML, CSS and JavaScript are used as front-end tools. The system communicates with a database residing on a remote server. Automatic calculation of student attendance rate without manual paperwork. The system provides end users with interactive design and automatic processing of attendance data.

Keywords—PHP, Attendance, XAMPP, SQL, Student Attendance System.

I.INTRODUCTION

Most educational institutions measure attendance manually. This is not only time consuming, but also unsafe, unreliable and possible loss. Some institutions are using punch cards for attendance while this will be difficult for teachers to keep track of a large number of students because by using a punch card, a student can help the other students or his/her friend to If other students are absent or late for class, they have to check in, which is unreliable. To overcome these problems we proposed a better system that is web-based; it is It is fully responsive when users can use it on mobile devices, tablets, and various computer systems. You can easily access a certain class without spending a lot of time and automatically generate reports. The main characteristics of the developed system are that it is web- based which is fully responsive and flexible. No matter where you are, you can access it from any computer. Its purpose is to make a web-based attendance software for; their subjects, teachers, and related fields. The student's daily attendance rate is automatically determined by the student's name and course selection. If the student was present then the present checkbox is checked similarly if the student was absent then the absent checkbox is clicked instead of the present check box, and by clicking the save button information will be stored in the database. Attendance reports are created automatically, reliably, error-free, quickly and easily.

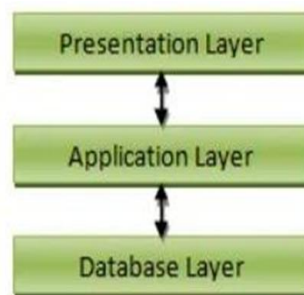
II. LITERATURE SURVEY

In early years punch card was used for data storage, it is also known as Hollerith cards, through these card companies were able to store and access the card via entering the card into the computer system [1]. Nowadays also it is used as one of the most popular attendance systems. Employees are using this card for in and out, they only need to wave the punch card near a reader then it will ensure the presence of the employee [2]. Many desktop applications for attendance have been developed. Here are some examples: 1.The attendance desktop application is designed to track students' daily attendance. Then the operator saves the specific class information provided by the teacher. Saurabh Kumar Jain, Uma Joshi, and Bhumpesh Kumar Sharma developed the software. The technology they use for the application is the language: VB. Backend NET y: MS Access [3]. 2. Jainetal has developed a desktop application in which when the lecturer starts the application then all registered lists of students of a particular course will be displayed. 2 To participate, you must check the box next to the name of the student attending, and then press the login button [4] to mark his/her attendance. Third place

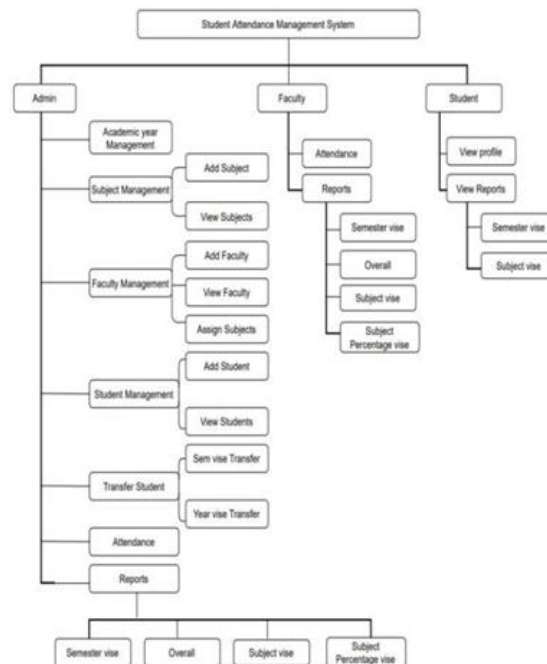
Desktop application developed by Muhammad, Ahmad Shakur Idris, Abu-Bakr Sadiq Hassan, Muhammad Ibrahim Hakimi and Muhammad Zakaria Abach, the language used is Visual Basic.Net [5]. There are many studies [6, 7, 8, 9, 10, 11, 12] on the subject of opinion mining and sentiment analysis related to the attendance system.

III. PROPOSED WORK

The proposed system has three roles Student, faculty and Admin. The whole system is used and managed by these three roles. The data stored in the database will be retrieved by the persons who have access to the data. The Admin role has full access to the system, The Faculty can access partial information and add data of students but they are also restricted to some data. The Student is restricted to most of the data and can only view access to his profile. There are mostly 3 operations performed on every data: r-Read, w-Write and x-Execute.



Admin have 7 modules they are Academic year management (rwx), Subject Management (rwx), Faculty Management (rwx), Student management (rwx), Transfer Management (rwx), Attendance (rwx) and Reports (r_x). The faculty has 2 modules: Attendance (rw_) and reports (r_). The Student has 2 modules: View Profile (r_) and Report (r_). The data can never be changed or altered by students; the changes can only be made by the authorized faculty or admin.



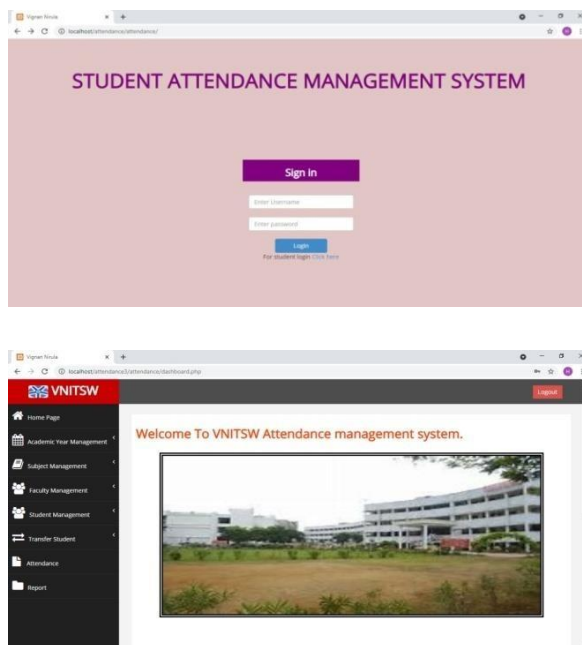
These 3 roles must get authenticated by their username and password before accessing the data. The

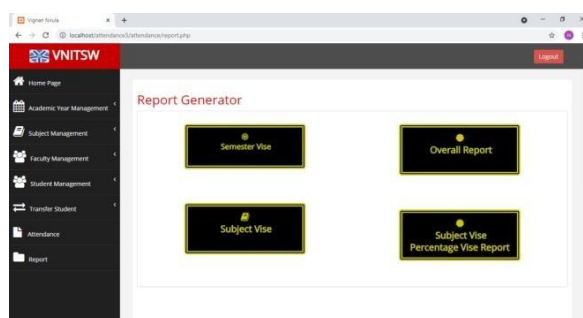
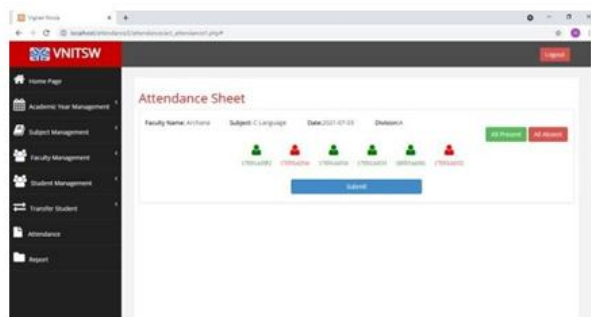
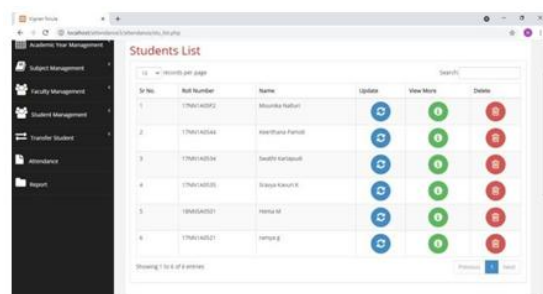
authentication system is encrypted so it cannot be understood by anyone who is involved in MIMA (Man in The Middle Attack) After completion of authentication if the authentication is valid the user gets logged in or if the authentication is not valid the user gets redirected to a homepage with a prompt "invalid username/password". The user had a session opened with the server; now the user can access his modules. After completion of the tasks the user can log out by clicking the logout button then the session will be closed. The student screen will provide information about student's data such as Student Name, DOB, Gender, email, phone, address, conversation, program, and semester are used as rows and columns. This is the screen that provides records of teachers, such as first name, last name, DOB, Gender, Email, Phone, Degree, Salary, and Address. The screen for Attendance purposes, the name and the program are automatically retrieved from the database. If the student was present then the present checkbox is clicked similarly if the student was absent then the absent checkbox is clicked instead of the present checkbox, by clicking the save button information will be stored. The data of every student is stored in a relational database, we used the Mysql server to create the database. The records are retrieved according to the query and processed using logical gates. The database is normalized as per the requirements. The commit happens after the completion of every successful transaction. If any error occurs, the rollback executes and the data will be in its previous committed state. The database is designed to maintain all the ACID properties. The database is not publicly available; it was maintained in a private subnet so that nobody can access it, only the application server can access it.

IV. RESULTS AND DISCUSSIONS

The reports for every individual student can be generated by the above-proposed system which is also secure and maintains concurrency. Here we can see the students added to the database. The System works under different conditions and maintains a consistent database the data is highly secured which can be accessed by only authenticated people.

Screenshots:





V. CONCLUSION

This article has developed a web-based server-side PHP attendance management system. Scripting language and CSS, HTML, JavaScript for designing which fully meet the system's goals. This system overcomes many limitations incorporated in attendance, this system saves a great amount of time and reduces errors that may occur during attendance calculation. The system I developed is fully responsive and can be used on mobile devices, tablets, and various operating systems. Some other advantages: Automation and easy-to-access Web interface. It is a dynamic and flexible system. Be locked out. Opportunities for errors in paperwork and the use of paper to track attendance. Very convenient and practical. The records of current and previous can be available in prompt and an immediate.

REFERENCES

1. Punch Card, available at: <http://www.computerhope.com/jargon/p/punchcard.html> lastaccessed, 10 Oct 2015
2. BIOENABLE] Punch card attendance system available at: <http://www.bioenabletech.com/punch-card-attendance-system.html> last accessed, 10 Oct 2015
3. Project Report on Attendance Management System available at: <http://www.iisjaipur.org/iim->

- [current-08/mca_iv_sem_pro_eva/15.project attendance management system.pdf](#) last accessed, 10 Oct 2015
4. S. K. Jain, U. Joshi, and B. K. Sharma, "Attendance Management System," Masters Project Report, Rajasthan Technical University, Kota.
 5. ACADAMIA] Attendance Management System, available at: https://www.academia.edu/9697549/Attendance_Management_System last accessed, 10 Oct 2015
 6. Asghar MZ, Ahmad H, Ahmad S, Saqib SM, Ahmad B, Asghar MJ. Simplified Neural Network Design for Handwritten Digit Recognition. International Journal of Computer Science and Information Security. 2011 Jun 1;9(6):319
 7. Asghar MZ, Ahmad S, Marwat A, Kundi FM. Sentiment Analysis on YouTube: A Brief Survey. arXiv preprint arXiv:1511.09142. 2015 Nov 30.
 8. Kundi FM, Asghar D, Zubair M. Lexicon-Based Sentiment Analysis in the Social Web. Journal of Basic and Applied Scientific Research. 2014;4(6):238-48.
 9. Asghar D, Zubair M. An Intelligent Agent for a Vacuum Cleaner. International Journal of Digital Content Technology and its Applications. 2009;3(2):143-6.
 10. Asghar MZ, Khan A, Ahmad S, Kundi FM. Preprocessing in natural language processing. Editorial board. 2013:152.
 11. Asghar MZ, Khan A, Kundi FM, Qasim M, Khan F, Ullah R, Nawaz IU. Medical opinion lexicon: an incremental model for mining health reviews. International Journal of Academic Research. 2014 Jan 1;6(1):295-302.
 12. Asghar D, Zubair M. Lexicon based Approach for Sentiment Classification of User Reviews. LifeScience Journal. 2014;11(10):468-73
 13. Tech Terms] WAMP, available at: <http://techterms.com/definition/wamp> last accessed, 10 Oct 2015
 14. Windows Server, available at: https://en.wikipedia.org/wiki/Windows_Server last accessed, 10 Oct 2015
 15. Apache_HTTP_Server, available at: https://en.wikipedia.org/wiki/Apache_HTTP_Server last accessed, 10 Oct 2015
 16. MySQL, available at: <https://en.wikipedia.org/wiki/MySQL> last accessed, 10 Oct 2015
 17. PHP, available at: <https://en.wikipedia.org/wiki/PHP> last accessed, 10 Oct 2015
 18. Supported Versions, available at: <http://php.net/supported-versions.php> last accessed, 10 Oct 2015
 19. Bringing MySQL to the web, available at: <https://www.phpmyadmin.net> last accessed, 10 Oct 2015
 20. Sublime Text, available at: https://en.wikipedia.org/wiki/Sublime_Text last accessed, 10 Oct 2015
 21. W3C] HTML & CSS, available at: <http://www.w3.org/standards/webdesign/htmlcss> last accessed, 10 Oct 2015 Bootstrap_(front-end framework), available at: [https://en.wikipedia.org/wiki/Bootstrap_\(front-end_framework\)](https://en.wikipedia.org/wiki/Bootstrap_(front-end_framework)) last accessed, 10 Oct 2015
 22. JQuery, available at: <https://en.wikipedia.org/wiki/JQuery> last accessed, 10 Oct 2015 JavaScript Libraries, available at: <http://www.w3schools.com/js/jslibraries.asp> last accessed, 27 Dec 2015
 23. Semantic UI], Design Beautiful Website Quicker, available at: <http://semantic-ui.com/> last accessed, 27 Dec 2015
 24. What are Website Templates? Available at: <http://allwebcodesign.com/website-templates.html> last accessed, 27 Dec 2015
 25. Project Report on Attendance Management System, available at: http://www.iisjaipur.org/iim-current-08/mca_iv_sem_pro_eva/15.Project attendance management system.pdf last accessed, 10 Oct 2015
 26. International Journal of Scientific and Engineering Research, available at: <http://www.ijser.org/researchpaper%5CStudent-attendance-software.pdf/> last accessed, 10 Oct 2015
 27. [UTIU] INFORMATION AND COMMUNICATION TECHNOLOGIES ENGINEERING, available at: <http://www.uninettunouniversity.net/allegati/1/CommonFiles/Eventi/it/27/440/Full%20Thesis.p> last accessed, 10 Oct 2015