

Student Attendance Tracking System

Darshan Kumavat¹, Bhushan Hyalij², Vaishanvi Kumavat³, Vrushali Zalte⁴, Khan Mariya R⁵

Students, Department of Computer Engineering^{1,2,3,4}

Guide, Department of Computer Engineering⁵

MIT Polytechnic, Yeola, Maharashtra, India

Abstract: The prime intention of making this project is to present a digitalized way to keep track the attendance of the student, which in turn would reduce the usage of pen and paper based manual method of marking attendance. Replacing the pen and paper method of taking the attendance, this system will conserve time and it will reduce the amount of task the teachers has to do. This system will replace the paper material with computer based system. This system deals with the maintenance of student's attendance details. It generates the attendance of the student on basis of presence in class. This system is maintained on the monthly basis of student's attendance. The teachers handling the individual subjects will be in charge of marking the attendance for all students. The attendance of student will marked if the student is present on that particular class. The system developed makes use of PostgreSQL as back end and PHP, HTML and CSS as front end. It generates the reports of student attendance.

Keywords: Attendance, Web Based Application, ID's

I. INTRODUCTION

Attendance Management System" is software developed for maintaining the attendance of the student on the daily basis in the collage. Here the staffs, who are handling the subjects, will be responsible to mark the attendance of the students. Each staff will be given with a separate username and password based on the subject they handle. An accurate report based on the student attendance is generated here. This system will also help in evaluating attendance eligibility criteria of a student. Report of the student's attendance on weekly and monthly basis is generated.

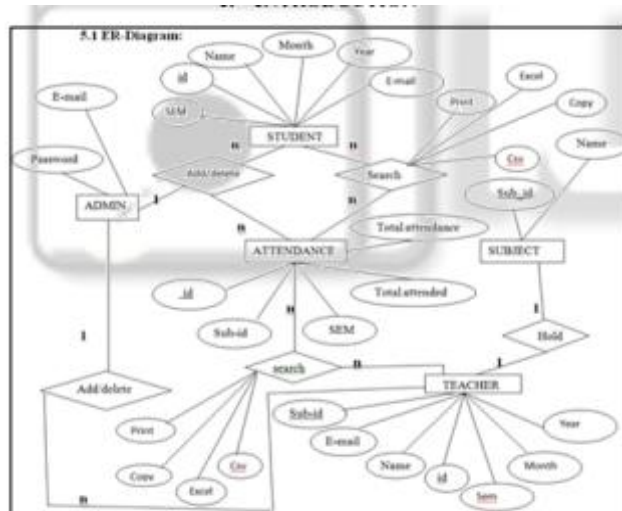


Fig. 1: Entity-Relationship(ER) Diagram of the Proposed System

Entity-Relationship(ER) Diagram of the Proposed System In the present system, attendance of the student is maintained using the attendance registers. To maintain student's attendance data, attendance is taken manually by the teachers by calling out the students name/roll numbers or making students to write their name on the paper. In this method: paperwork, maintaining of records and computing the attendance of every student becomes very difficult. The attendance maintained in the registers is very difficult to manage as well as to update the data. In the present system it is very difficult of calculating the percentage of student attendance. Collecting previous year's data or backup of data is very difficult in this paper based method. Other disadvantage of the present system is paper work or sheets could be

stolen. The motive of developing Students Attendance Management System is to digitalize the normal way of taking attendance. It is a platform for maintaining student attendance in schools, colleges and institutes. It makes easy for accessing the attendance information of a particular student in a particular class. In this proposed method, data accuracy is maintained, within a short span of time. The system is not only improves the work efficiency, but it also saves human and material resources. This system will help in evaluating attendance eligibility criteria of a student. All the attendance information of a student is fitted into the computer immediately and reports can be generated through computers.

II. RELATED WORK

Nowadays, there is much research made in the field of student attendance management system. There are multiple ways of developing an students attendance system like web based application, mobile based application, RFID (Radio Frequency Identification) fingerprint based attendance system, Bluetooth based application, and iris-based attendance system. In Web based student attendance management system used a SMS software technology. This software is used to send SMS quickly to student parents. These systems can store information regarding the students and those cares absent student details. The advantage of using this system is, it uses efficient technique to store and update the student attendance and report in the website rather than wasting paper work. In Web based student attendance management system used a QR (Quick Response) technology. In this technology, a student scans the QR code using a QR code scanner; it registers the students who are present in the class. Then this data is send to the server, where the server makes a call to the API. In Web based student attendance system using RFID technology will be more useful to improve the present way of taking the attendance of a student and tracking it. This system of taking attendance will be more helpful for universities or schools because it is easy to connect data to internet. This system promotes a semiautomated mode in capturing the student attendance, i.e. by making the students to move their id cards to the RFID reade.

III. EXISTING SYSTEM

The Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers. This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to work. so the user find it difficult tousle.

IV. PROPOSED SYSTEM

To overcome the drawbacks of the existing system, the proposed system has been evolved. This project aims to reduce the paper work and saving time to generate accurate results from the student's attendance. The system provides with the best user interface. The efficient reports can be generated by using this proposed system.

4.1 Advantages of Proposed System

- It is trouble-free to use.
- It is a relatively fast approach to enter attendance
- Is highly reliable, approximate result from user
- Best user Interface
- Efficient reports

V. SYSTEM FLOW DIAGRAM

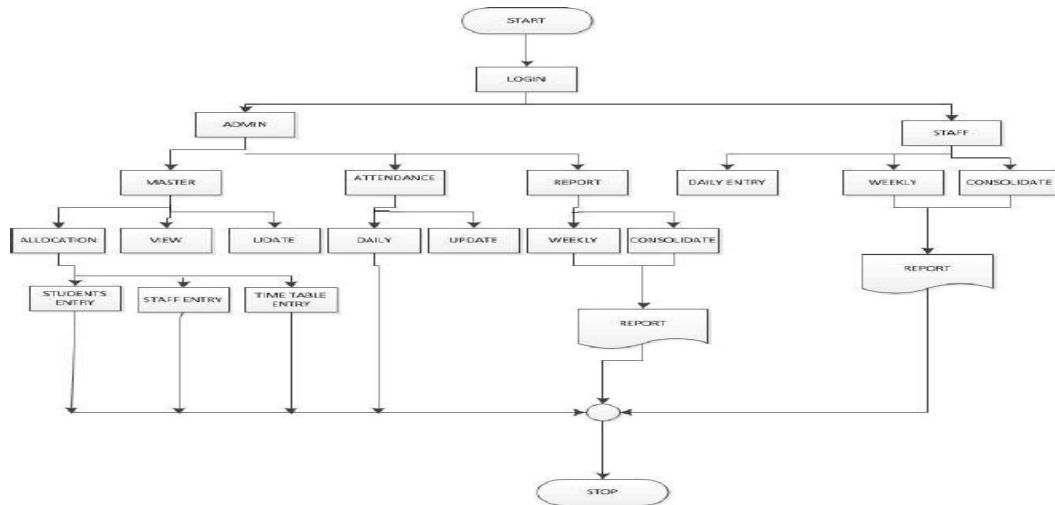


Fig 1.Data Flow Diagram

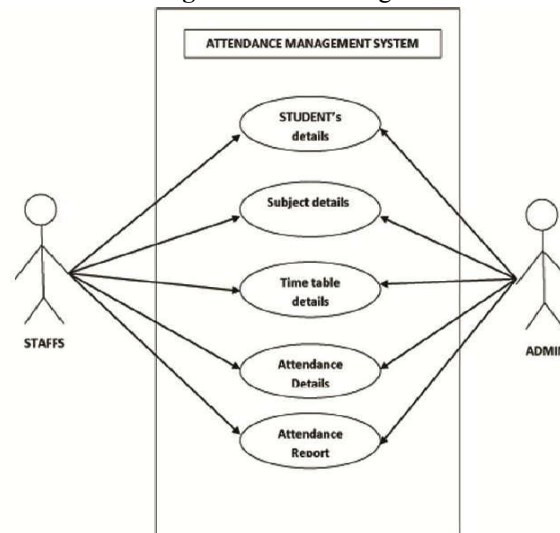


Fig.2 Use Case Diagram

VI. CONCLUSION

A student attendance and information system are designed and implemented to manage student's data and provide capabilities for tracking student attendance, grading student marks, giving information about timetable, lecture time, room number, and other student-related information. Also, the proposed system provides easiness for the staff where there is no need for extra paper works and additional lockers for saving data. Results achieved the innovation of developing the system proved reliable to support the attendance management system for an academic sector in the usage of the RFID technology and microcontroller board. It can be considered as a successful implementation.

REFERENCES

- [1]. Anitha V Pai, Krishna A, Kashma PM, Correa M. Web service for student attendance management system www.ijarse.com. 5(3): Mar 2016
- [2]. Gangagowri G, Muthuselvi J, Sujitha S. Attendance management system based on SMS technology.
- [3]. Pradnesh Dinesh Kore, Shubham Chandrakanth Kelkar, Gaurav Sunil Khare, Prof.Neha Singh. Published in (IJSRD/Conf/NACCT/2016/013)

- [4]. Arbian N, Nordin NF, Isa NM, and Saaidin S. LAS: Web based laboratory attendance system by integrating RFID-Ardiuno technology. In IEEE: 2014.p.84-94.
- [5]. Srinidhi M, Roy R. A web enabled secured system for attendance monitoring and real time location tracking using biometric and RFID technology. In IEEE: 2015.p.125.
- [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. Web-based student attendance system using RFID technology. In IEEE; 2012.p.213-8.
- [8]. Karwan Jacksi, Falah Ibrahim, Shahab Ali. Student Attendance Management System. In SJET, Feb 2018; 6(2):49-53.