



Attendance Management System

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Abstract — Over the years the manual attendance system has been carried across most of educational institutions. To overcome the problem of manual attendance, now we are using a web based attendance management system, which can be implemented on any computer. This system is being developed to maintain easy access of information from the database. The application makes use of MYSQL as back end and JAVA, HTML, CSS is used as front end. It tracks all the details of a student attendance from day one to end of the course. The conventional method of taking attendance by calling names or signing is very time consuming and insecure, hence inefficient and some of the reasons are not reported to the parents or guardians because the way of informing them is a traditional way and it takes a long process. Here, we implement a system which is SMS broadcasting, which will help the faculty to inform the parents about their student's performance and attendance.

Keywords — Web based attendance management system, Database, SMS broadcast.

I. INTRODUCTION

Attendance Management System (AMS) is software developed for daily attendance of students. Previously, the college relied heavily on paper records. This paper focuses on preventing information in an easy way and intelligible manner which reduces paper and time. The project makes use of database in order to keep a record of attendance and is used while generating a report for individual student. The system is fully controlled by administrator about the staff's profile, student information student attendance. The administrator can add new student, add new staff, view staff and student and view the student attendance report. The faculties are able to directly access all aspects of the student's progress through a secure, online interface embedded in the college website. After the class has been finished, the lecturer can view the student's attendance that has been saved in the faculty server. This system will also help in evaluating attendance eligibility criteria of a student. The faculty can also send messages to parents or guardians about the student performance and attendance by short listing the students. Hence, here communication is made easier with parents and faculty. The messages can be sent through SMS to the mobile number given in details of the students in the file. The purpose of developing this software is to computerize the tradition way of taking attendance. Another purpose of software is to generate the report automatically at the end of the session. Moreover, graphical user interface is provided in the proposed system, which provides user to deal with system very easily. The scope of this project is the system on which the software is installed i.e. the project is developed as a desktop application, and it will work for a particular institute.

A. AIM AND OBJECTIVE

The main objectives of our work are:

- Data of student has been computerized without using any manual effort.
- Parents get the SMS about their ward status day to day.
- Easy to generate the report.
- Rapid access to any information regarding the students' attendance.

II. LITERATURE SURVEY

[1] "Web Based Student Information Management", S.R.Bharamagoudar et al., this paper assist in automating the existing manual system. It can be monitored and controlled remotely. This paper provides accurate information always. All years together gathered information can be saved and can be accessed at any time. The purpose is to design a college website which contains upto date information of the college. That should improve efficiency of college record management.

[2] “Attendance Management System G.Gangagowri et al., this system is used Way to SMS software. This software is used to send SMS easily to their parent’s. This system can store their data about the students and those cares absent student details. It is an efficient method to store the attendance in the Web Site rather than wasting the paper. It also updates the student report directly on the server reducing the faculty’s time on logging from the computer.

[3] “Online Student Attendance System”, P. N. Garad et al, in this project, we gave access to three user i.e. Admin, Student, Others. This project is based on client-server. Here, the serve is Tomcat and client is JSP. In this project teachers or the admin will be filling attendance and sending message to the student who is absent. They will have privilege to fill attendance form, update attendance form, send message to the guardian’s account whose child is absent, also those attendance is less than 75%, and they also have privilege to send message to the students whose fees are pending. he staff can also view the message whenever they want and also can modify the details of students. Parents have privilege to view attendance and to view message sent by the teacher. Students also have their account with the privilege to view message sent by the subject teacher and to view the attendance.

[4] “Web Based Coaching Institute Management System”, Mayuri Kamble et al, “Coaching Institute Management System” software developed for an institute has been designed to achieve maximum efficiency and reduce the time taken to handle the storing activity. It is designed to replace an existing manual record system thereby reducing time taken for calculations and for storing data. The system is strong enough to withstand regressive daily operations under conditions where the database is maintained and cleared over a certain time of span. The implementation of the system in the organization will considerably reduce data entry, time and also provide readily calculated reports.

[5] “Classroom Attendance Application”, Pranjul Kharel et al, the scope of the project is the system on which the software is installed, i.e. the project is developed as an ANDROID application, and it will work for a particular institute. Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google with a user interface based on direct manipulation. RAD approaches to software development have put less emphasis on planning tasks and more emphasis on development. It has revealed that an online system for recording and reporting students’ attendances is indeed a needed application in order to make the process more efficient and time-saving where more than 70% of the sample group agreed to that matter.

III. EXISTING SYSTEM

The Existing system is a manual entry for the Admin and also Faculty. Here the attendance will be carried out in the hand written registers. Maintaining the records for the Faculty is a tedious job. The retrieval of the information is not as easy as the records are maintained in the registers.

IV. PROPOSED SYSTEM

In order to overcome the drawbacks in existing system, a Web application has developed for daily attendance of students. The system consists of two actors one is Admin and another is Faculty, Admin is a super user who can create any Faculty, Student, Class details and Broadcast SMS etc. Faculty user can able to update an Attendance which has been taken in the XL Sheets. It is made easy to access the attendance information of a particular student. The information regarding the attendance is sent by the Faculty to the admin for related class which has been taken using the XL Sheet given to them. This application is helpful in evaluating the attendance eligibility of a student. The purpose is to computerize the tradition way of taking attendance and generating of report automatically at the end or between of the session. The report that is sent through the SMS is more interesting!!

Advantages of proposed system:

- *Ease up the process of attendance.*
- *Easy Analysis of data.*
- *Better user interface.*
- *Reduced dependency on natural resources for paper.*
- *Easy generation of summary of attendance.*
- *Provide communication between Faculty and parents.*
- *Automatic SMS will be sent to parents to inform the status of their child whether present or absent in the institution.*

V. METHODOLOGY

SYSTEM ARCHITECTURE

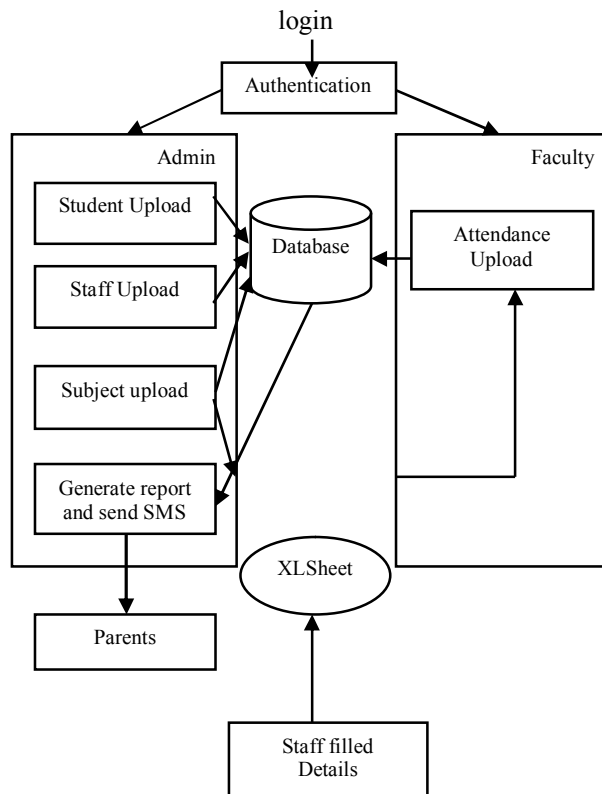


Fig. 1: System Architecture

The design is expressed in sufficient detail so as to enable all the developers to understand the underlying architecture of Attendance system.

VI. SYSTEM DESIGN

This deals with context diagram, detailed data flow graph, use case diagrams of this system.

A. Dataflow diagrams

A Data Flow Diagram (DFD) is a graphical representation of the “flow” of Student Information System. A data flow diagram can also be used for the visualization of Data Processing [2]. DFD shows the interaction between the system and outside entities. This context-level DFD is then “exploded” to show more detail of the system being modeled. A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem analysis.

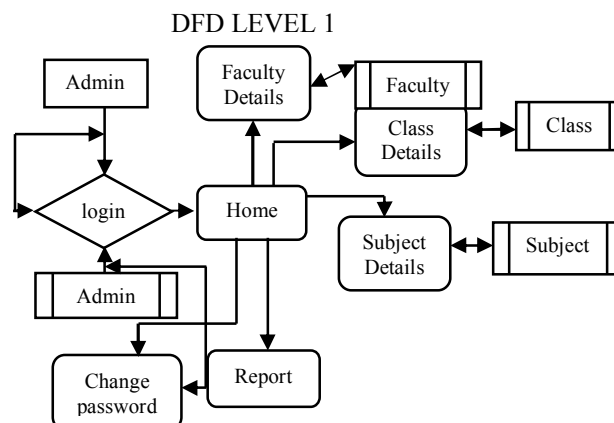


Fig. 2: Activities of Admin

It views a system as function that transforms the given input into required output. The Attendance System mainly comprises of the two components: Admin, faculty. Admin is a super user who can create any Faculty, Class, Exam etc. Faculty user can able to add Students and maintain Student Marks and Attendance and Broadcast SMS.

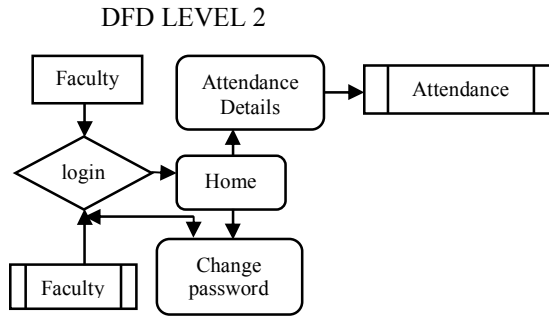


Fig. 3: Activities of Faculty

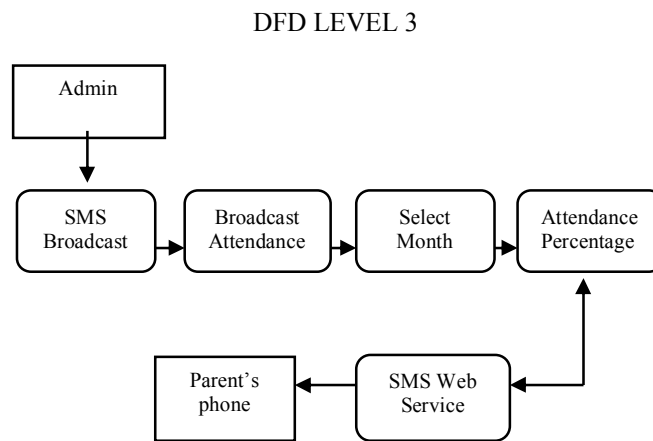


Fig. 4: Describing the SMS Broadcast

The figure above 2, 3, and 4 describes the activities performed by the admin, faculty in more detailed pictorial relationship.

B. Use Case Diagrams

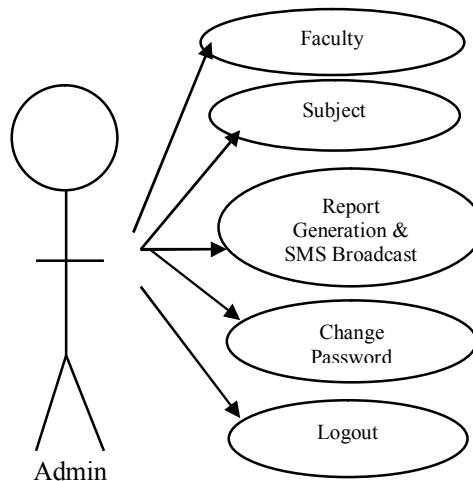


Fig. 5: Use Case Diagram for Admin

ADMINISTRATOR: The administrator manages the faculty accounts like entering a new faculty, assigning the faculty to the subjects, request for report. THE username and the password of the faculty can be changed by admin. The administrator has the highest level of power in the faculty information system.

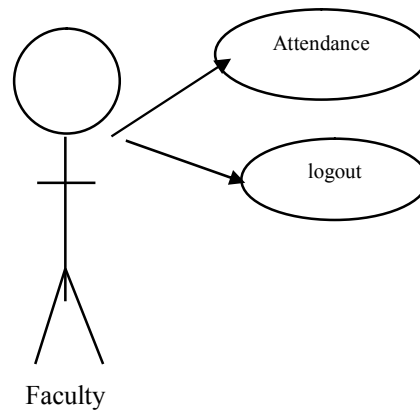


Fig. 6: Use Case diagram for faculty

STAFF: The student's attendance, internal marks of the students and any information regarding the subjects can be updated by the staff. They can also view the student details for better understanding the student performance and improving the efficiency of the student. The staff also can broadcast SMS to the parents regarding their performance and attendance.

VII. CONCLUSION

In this paper we have proposed an attendance management system where attendance has been taken in the digitalized way. By using the proposed system we are overcoming the problems of the manual entry. Here we are implementing a system where the attendance is taken and it automatically updates the attendance, marks details. We are also designing a system where in the attendance details and the marks details have been sent to their respective parents/guardians through broadcasting of SMS. In future work, we can implement the attendance management system using RFID technology.

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