School Administration System

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Abstract— This is a technology solution to the administration of the school by providing all the facilities and features that a school needs to carry up to perform its basic operations like fee collection, student details and many more. This software boasts a variety of features like attendance monitoring, homework, discipline, grades and achievements. This module is an effective solution to make school library management simple and effective.it has features such as find, search, issue and return books.it also includes reports of library member, daily issue registers and much more. Almost all the information regarding the students can be assessed easily using this school management software. Teachers can use the student database to avail the information of students like grades, address, information regarding parents and siblings etc.in addition to this information, details regarding the student's medical history, account billing etc. are also added by the administration. This software also provides information regarding teacher's activities inside the school. it's easy to view a particular teacher's class schedule, file reports efficiently etc. also teachers can use their database to keep the details regarding class timings, student progress and classroom activities in one place. Therefore, this software provides the various features in administration of the school. School authorities all over the world are continuously engaged in numerous activities to efficiently manage school functions and provide a better educational experience to student.

Keywords: School Administration System

I. INTRODUCTION

This provides the varies features in Administration of the School. School authorities all over the world are continuously engaged in numerous activities to efficiently manage school functions and provide a better educational experience to students. However, managing school affairs is not at all easy in this fast growing world. To better perform the functions of school management and assure parents of their child's safety and progress, schools are using school management software nowadays.

This software boasts a variety of features that improve the overall administration of schools. Now, let's have a look on the top 12 characteristics of highly effective school management software. Attendance, homework, discipline, grades, and achievements! Almost all the information regarding the students can be accessed easily using efficient school management software. Teachers can use the student database to avail basic information of students like grades, address, information regarding parents and siblings etc. In addition to this information, details regarding the students' medical history, accounts, billing etc. are also added by the administration. Smart cards for schools can be used as identity cards to access the details regarding a particular student when required. As simple as that!

Effective school management software not only helps in availing information regarding students but also provides information regarding teacher activities inside the school. It's easy to view a particular teacher's class schedule, file reports efficiently etc. Also, teachers can use their database to keep the details regarding class timings, student progress and classroom activities in one place. To a great extent, student success depends on the effectiveness of communication among parents, schools and teachers. School management systems have Parent portal, which are capable enough to facilitate the communication process by sending text, voice messages and e-mails to a predefined set of parents and the whole school. Thereby lessening the time invested by the school administrators in making phone calls or leaving messages to parents. Another small but important feature of highly effective school management software is the facility to use templates that can be saved to communicate important days like teachers' day, annual day, cultural day etc.

Attendance management is an important school administrative task and it requires teachers to spend a small chunk of time at the beginning of each class. Sometimes, it is difficult for teachers to manage the whole process of taking attendance and recording them accurately. Marking attendance in grids having small squares is very hard and errors can occur very easily but attendance management is no longer a burden with the Teacher App. Now, recording attendance of each student is just a click away. You can manage attendance of your students without any errors using online attendance pages and share the details with parents within a short time.

The teacher app also provides an effective way for teachers to mark their own attendance, check the timetable and apply for leaves from their smartphones. Timetable management for schools become a much easier process with this feature.

While term examinations are still relevant, it is of much help to teachers and students to test and learn the knowledge each student has acquired continuously. Online assessments and assignments are therefore very important. Teachers can provide individual assessments to each student looking at their level of knowledge if so required. Rubric-based assessments can be used by teachers for such purposes. So, this is an important feature for school management software to have.

A Report Card represents a student's hard work throughout the year and it is the most anticipated thing in an academic year. However, both the teachers and the school administration find it a time-consuming responsibility. School management software can help teachers and school authorities to streamline the process of generating report cards using an interactive database. With the already available information about a student's class performance, attendance and exam results, the database completes the report card automatically.

Teachers can review this before finalizing and approving the report card and make it accessible to parents and students immediately. Managing receipts and incoming

payments, preparing bills, tracking several types of fees before applying them to the right student etc can be time-consuming and difficult without proper software to handle the functions. A simple way to manage and deliver payments, charge fees and prepare bills is by using Smart Cards for payment system. It is easy and convenient to use. Online billing helps schools to allow credit card payments and parents can pay their child's school fees at home easily. This make the whole process of fee payment hassle-free for both parents and the school.

Avoid keeping bundles of files as you can save all the data in a system. This method can help you to access the data immediately if required.

You can do this with effective school management software. Such software is capable enough to manage the registration and admission process of both old and new students smoothly. This software can remove the difficulties caused by human errors and treats the new and old students differently based on the information provided. School management system software efficiently performs profile management system which is used to manage students, parents, staff and teachers. It captures information such as name and contact information of the users. Every user has unique login credentials to access.

With this module, daily classroom homework assignments become easily available to students 24 hours a day.

It also contains the date when it was assigned and when it should be submitted. In addition to these, teachers can also modify homework assignments and projects as per the requirements.

This module is an effective solution to make school library management simple and effective. It has features such as find, search, issue and return books. It supports bar code & scanning capability to automate your library.

It also includes reports of library members, daily issue register and much more.

Any effective school management software will have the facility to manage school transportation effectively.

With this, you can keep track of each student's route change history. They also display information such as students who has opted for school transportation without routes assigned to them. It ensures student safety by making sure whether a student is present on the bus or not and later submits the report to their parents.

II. OBJECTIVES

1) To improve the overall administration of schools
2) Student registration (new and continuing students).
3) Effective school management.
4) Financial system
5) Library management system

III. TYPES OF USERS
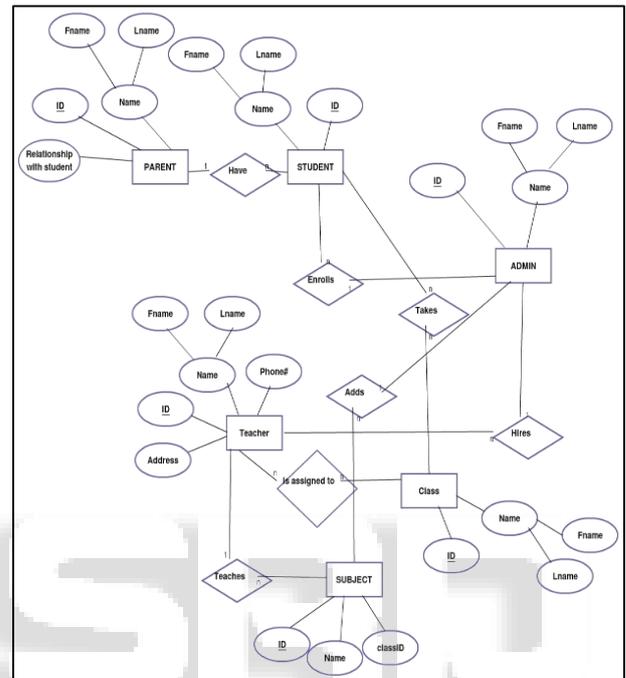
1) Admin Login
2) User Login

IV. HARDWARE REQUIREMENT

1) System with Internet Connectivity Location-enabled

2) I3 processor based computer or higher
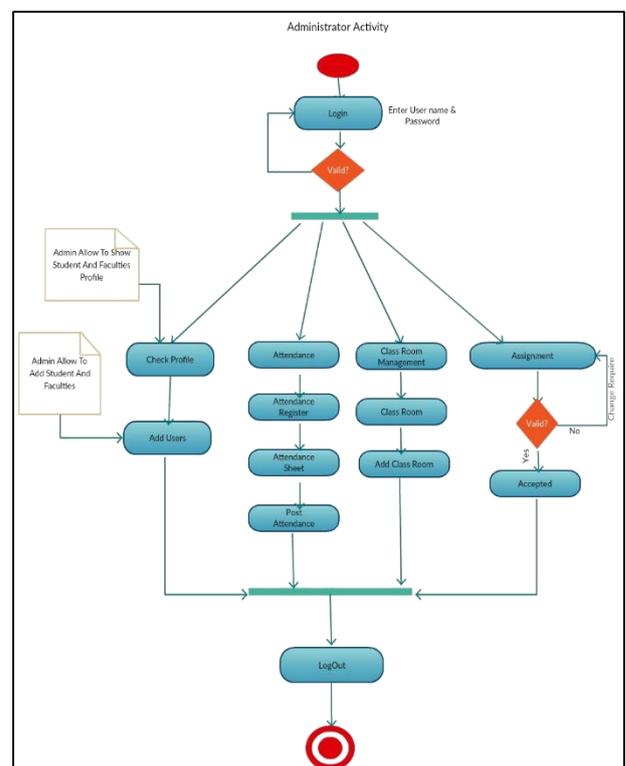3) Memory: 4 GB RAM or more
4) Hard drive: 128 GB

V. SOFTWARE REQUIREMENT

1) Visual studio2010
2) SQL server 2008
3) Window 7 or higher

VI. E-R DIAGRAM OF SYSTEM

VII. ACTIVITY DIAGRAM OF SYSTEM

VIII. ADVANTAGES

1) Single software to manage all School-related information from anywhere in the School
2) Easy to use school software/college software Reliable and secure software
3) Low Cost of Ownership
4) Complete Automation of operations
5) More Time to focus on Strategic Tasks
6) Better informed decision making for management
7) Multiple Campus Management
8) One-Time Cost to purchase the software Scalable, Customizable and Supports Multiple Modules
9) Parents have access to all academic information about their wards through the internet

IX. DISADVANTAGES

Unexpected failure of system.

X. APPLICATIONS

This system can also be used in college, library etc.

XI. FEATURES

A. Student Master:

This is the module where the Student is registered and is admitted to the School.
It consists of a Form where all the Details of the Student is filled along with a unique student identity number (admission number).

This module also allows to enter whether there is any concession regarding the fees of the newly admitted student.

B. Student Dashboard:

Student dashboard is a module where the details of a particular student is fetched and displayed, it consists of all the details of the student including the mothers name fathers name and all the personal information.
When you enter the Admission number of the Student whose details has to be fetched then the details are generated.

C. Student Result Update:

This module provides you a functionality to update any result related issues of the class and a particular section.

D. NSO Entry:

This module includes the entry of the Student who are interested in National Science Olympiads Completions.

E. Transfer Certification:

Most parents can testify that transferring a student from one school to another is a long process mired in red tape. ... Jaffer issued a circular on June 1 stating that the transfer certificates issued by schools need not have a countersignature.

F. Transport Related report Generation:

Transfer certificate is a certificate issued to a student on his request by the in charge of the institution is College or School when the student wants to leave that institution. This Module provides you a functionality to generate your transfer certification report.

G. Student Category Report Generation:

This module provides the generation of the report according to the caste category of the students, for example: when you enter the category as General then all the student belonging to the general category can be fetched into a report.

H. Class wise Student Report:

This module provides the generation of the Report of the students that belong to the entered class.
Class Wise student report is generated using this module functionality.

I. Student All Details:

This module provides the generation of the report of all the students that is belong to the particular session logged in School.

All the students affiliated to that particular school are fetched and displayed.

You can provide the Class name to enlist all the students that is under the following class category and can print the outcome in form of a PDF format.

J. Student Specific Detail Report Generation:

This module provides the Report generation of the All the boys and girls studying in a Following class and following section.

It provides a list of members in the particular class and Section. And the all the specific details related to that student

1) Student Strength Summary:

This module provides the report of the strength of the Student studying under the following class.

K. TC report:

This is the TC Generation report outcome module section is provide the generation of the TC and maintains the record of all the students that has been transferred from the school.

L. Transport List Report:

This module provides the Functionality of generation of the Transport List report.

M. Class Wise Transport List:

This module generates the transport list report using the class as its search element.

N. New Admin List Report Generation:

This is the module that provides the generation of the report of the newly admitted students.

O. Concession Wise Report:

This is the module that provide the functionality to generate the report of the students who has been applied a concession on their fees at the time of Admission in Student Master Portal.

All the students with the concession in their fees will be displayed here.

P. Sibling Report:

This is the module that provides the functionality to generate the report on the basis of any sibling of the student currently studying in the school

Q. Sibling Search:

This is the module that is used to search any sibling of any student currently studying in the school.

R. Class wise Student Report:

Class Wise student report generation of all the students that is currently studying in the following class.

S. Fees Master:

Fees master is the mechanism to store the fees of the school admitted student. The fees can be entered by monthly or by yearly or the newly admitted students' fees can be uploaded.

T. Edu Comp Fees:

Edu comp Fees involved the fees of the students who have involved in the activities of smart classes like Edu comp.

U. Fee bill Generation:

This is the module that provide the functionality of generation of the Fees bill.

V. Bus fare:

This is the module that provide the functionality of generation of the bill of generated by the Bus fare.

XII. CONCLUSION

In this Project, We developed an automated school development system that facilitates the various activities taking place at school. The System develop in the project consist of windows and web application. These are two different applications on the same database. The windows application takes most of the activates such as offline student registry, transcript, and report card generation and producing the time table.

The web application facilitates attendance recording by the home room teavhers and to view reports, to view status of the students by students, teachers and parents.

Our solution of timetabling problem is very simple. Data structures are used to implement the time table design.

The scheduler selects a subject teacher from the database, retrieves all the classes assign to the teacher, calculates the load of the teacher which cannot be greater than the maximum load and selects one of the days randomly based on the number of lessons of the subjects, search a free appropriate time slot and assign the slot to the lesson. The scheduler repeats the process until the load of the teacher becomes zero and all the teachers in the database are visited. Finally the result generated is stored in the database.

REFERENCES

[1] "https://www.slideshare.net/aki_string/school-management-system-21413550"

[2] Nlp.stanford.edu. (2016). Stemming and lemmatization. [online] Available at: http://nlp.stanford.edu/IRbook/html/htmledition/stemming-and-lemmatization1.html [Accessed 17 Apr. 2016].

[3] Busino, G. (ed) (1965) Oeuvres complètes. Vilfredo Pareto 1848-1923. Geneva: Droz.

[4] Russell, Stuart,Norvig, Peter(2003) [1995]. Artificial Intelligence: A Modern Approach(2nd ed.). Prentice Hall. ISBN978-0137903955.

[5] Konstantinova, N. (2014). Machine learning explained in simple words - Natalia Konstantinova. [online] Nkonst.com. Available at: http://nkonst.com/machinelearning-explained-simple-words/ [Accessed 18 Apr. 2016].

[6] Miskovic, V. (2001). Application of inductive machine learning in data mining. Vojnotehnicki glasnik, 49(4-5), pp.429-438.

[7] Slideshare.net. (2016). Lucene/Solr Revolution 2015: [online] Available at: http://www.slideshare.net/joaquindelgado1/lucenesolrrevolution-2015-where-search-meets-machine-learning [Accessed 16 Apr. 2016].

[8] (2018) file:///C:/Users/K.P/Downloads/FullPaperECommerce-Feb.2016.pd Docs.opencv.org. (2016). Introduction to Support Vector Machines — OpenCV 2.4.13.0

[9] "https://www.slideshare.net/aki_string/school-management-system-21413550"