ITE – 3999 Final Year Project

Project Proposal

School Information Management System

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1. Introduction

There are three types of schools in Sri Lanka. They are Government Schools, Private Colleges and semi-government schools. Most of government schools have tradition functionalities to manage their information. It is not an easy work. There are lot of information to keep and maintain, they are Teacher's information, Student Information, Administrating details, timetable and allocation to teachers for relief periods also. Many kind of registers have to be maintained to keep those all information. If it is to retrieve some details emergency, they cannot get them easily and fast. Also some administrative information like teacher's attendants, internal examination time table and allocation teachers for relief period.

This system is mainly used by administrator and principals in-order to view and access the information regarding college which comprises of students and teacher's details, examination time table notifications, placement details, exam timetables etc.

Schools are organizations that can be defined by their orientation to a shared purpose and practices (teaching, learning and administering), by a coordinated division of work or responsibility (staff, school management). [1]

School Information Management system is an effective tool for augmenting the school practices abstract the technological advancements have influenced the society so as to take a leap towards success. Every technological reform is a small step towards advancement and progress of mankind. [2]

The introduction of technology in client school can thus result in a decreased use of paper and in bringing most of the school office work in an e-format.

The system will be developed using PHP (web developing language), MySQL (Database Management System) and EDraw (to design the diagrams).

2. Background and Motivation

My selected school also a government school and I have notified some weakness of manual information keeping methods using by this college. They are keep students information such as student name, date of birth, registration number, contact number, address, current grade who is studying, etc. Student registration number is unique. It is used for many academic tasks and usually need it to confirm their studentship. So if student request to know about his register number and it is hard to retrieve it from register quickly for relevant officer.

Teacher's details which keeping on registers are name, address, date of birth, contact number, first appointment date, date of present place of employment, educational qualification, working experience, extracurricular activities, attendance, leave, etc.

Requesting reports regularly from the education zonal office and other relevant offices are teacher's details, such as class wise, subject area wise, etc. Then it cannot be retrieved, analyzing data which recorded in registers and other hand written documents.

Regularly principal wants to know what the classroom a teacher who is teaching now. So he/she asks relevant officer. But officer cannot find out this information quickly without any voice message or without searching his or her personal time table.
Many kind of time tables are used in the college such as personal time tables, class time tables and subject wise timetables. It is hard to searching some information quickly.
The other main task is allocation of teachers to relief periods. Normally there are few or many teachers absent daily in schools and principals should allocate the teachers to time periods which are teach by them. Also there are about 10- 30 teachers absent daily in this school their periods must be allocated other teachers. It is necessary allocate relevant class teacher or teacher who is teaching that class or grade. But there are no particulr teacher, it should be allocated any teacher to the time period. Because it must to the keep school deceplene. Vice principal or named officer have to allocate relief daily. But it is hard to search class time tables and personal time table quickly, therefore it wastes about 1-1 ½ time for this task. Sometimes, allocated relief teachers may get half day leave or short leave. Then it must be allocate another teacher again. This relief time tables are noted down on a book and want a school labour to show it for teachers. This is a complex and time wasting process.
Student's examination marks also keep on manually report cards and books.
Announcements to teachers also are sent by hand and it wastes time.

There are a few types of internal examinations in the school such as term tests, monthly tests and prize giving selecting tests. Examination time tables are distributed by manualy and time table changes may not be sent to relevat teachers and therefore it couses problems.

G.C.E Advance Level students enrollment is also a manual process. Applications recieved by post or by hand and it has to be separeted section wise Bolological stream, Maths stream, Commorce, Art and Technological stream. After that it should be collected them with highest A passes and B passes and then it has to be sent interview calling letters to selected students.

3. Problem in Brief

There are a lot of information have to be kept and maintained, Teacher's information, Student Information and Administrating details, timetable and relief teachers allocation, advance level student's enrollment are them. Many kinds of registers have to be maintained to keep those all information.

It is hard to retrieve, modify, exchange or delete data in immediately and client institute haven't automated process to do them. Time consuming is high when doing manual process and client school want to reduce time wasting in manual process.

Time table arranging and allocation of teachers to relief periods is hard work and sometimes this process may be failed by human errors. Also new advance level students enrollment is

manual process and Sectional heads have to work hard to select suitable students from large bulk of applications.

4. Aim and Objectives

4.1 Aim

The aim is to design web based school information management system which contains up dated information of the college.

4.2 Objectives

This proposed system includes following modules,

- Customized Teachers' and Students' profiles.
- Generating Dynamic time tables.
    - Related to taking teachers' attendance.
- Generating student analytical performance report to monitoring and recommending future paths.
    - Related to exam marks of students.

5. Proposed Solution

The design and implementation of a comprehensive student information system and user interface is to replace the current paper records. [3] School Information Management System is mainly designed to satisfy the administration related data needs. System is used to manage any student related information, teacher's information, administrating details, timetable arrangement and relief period placements.

The introduction of technology in schools can be resulted in a decreased use of paper and in bringing most of the school office work in an e-format.

This is mainly used by students in-order to view and access the information regarding college which comprises of students information, teachers information, teachers placement details, exam timetables etc. Any college related information such as updating or deleting of student records could be done easily and securely using this system. School Information Management System is a repository of data collection, data processing, data analysis, and data reporting. Admin provides secured logins to each and every section such as student & teachers details entries, teacher's placement and arranging timetable section, exam section also.

This system provides a customized profile for teachers and students. Teacher can see students' details and he/she can get authentication to add marks to student profile. Teachers profile can view by the principal and it can be edited only by themselves. Proposed system plans to provide dynamic time table. This process related to teacher's attendance import by presently using finger print machine and arrange relief time tables.

Then relief time periods, examination time table, news and other notifications are sent by SMS or an email.

To enlistment of advance level students is plan online. This system provides online from and student fill and send it to school, then it gives authentication by sectional heads and they can select students with system.

Principal can receive any report by the system like attendance, time tables, students' marks and analytical performance report of each student and selected A/L students also.

The users of this proposed system are Administrator, principal, Teacher and student. All these users will be able to login to the system with separate logins. Administrator has main privilege to maintain system. New staff members can be registered under administrative concern.

The following table shows users and activities involved with the main modules in this system.

Administrator	**Principal**	**Teacher / Sectional Head**	**Student**
This is the authorized user level with high privileges to access the system. Who is the knowledgeable person to all the administration of the system such as view reports, user management, managing functionalities of the system, add or delete users, etc.	Maintain the relief period time table, send news and announcement, view students and teachers' profiles, view reports.	Handle personal profile and enter exam marks for the student profile, create and view student profile. A teacher who is working as sectional head can analyze and view reports new A/L students' applications.	View only self-profile. A/L student can register and fill the online application form.

Table 1: Users and Activities

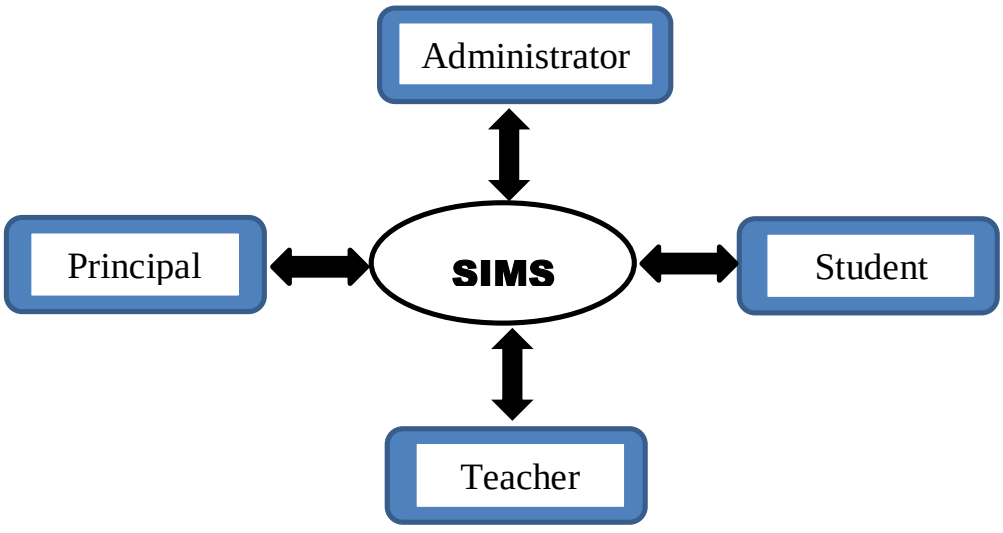

Figure:1 Data Flow Diagram

6. Resource Requirements

Software requirements:

- Adobe Dreamweaver CS5 / /PHP /XAMP server 2.2 or higher
- Web Server - Apache
- Database Server - MySQL
- GUI for DBMS - phpMyAdmin
- Tools - MS project, EDraw, NaviCat

Technologies :

PHP, HTML, CSS, AJAX, JQUERY

Hardware requirements:

- Server: 3.0 GHz or Higher processor, 4 GB RAM, 120 GB disk space
- Client: 2.5 GHz or Higher processor,,1 GB RAM, 512 MB disk space

7. Reference

[1] A. Breiter, "Digitale Medien im Schulsystem," in *Organisatorische Einbettung in Deutschland, den USA und Großbritannien*, Zeitschrift für Erziehungswissenschaft , 2001, p. 625–639.

[2] R. A. Breiter A., Paper Versus School Information Management Systems: Governing the Figurations of Mediatized Schools in England and Germany., Cham: Palgrave Macmillan, 2018.

[3] G. R. S.R.Bharamagoudar, "Web Based Student Information Management," *Advanced Research in Computer and Communication Engineering*, pp. 2342-2348, June 2013.

[4] J. Ervin, "Student Centered Leaning," *Technology in the Classroom*, 2017.

[5] M. J. S. Asiri, R. Mahmud, K. A. Bakar and A. F. b. M. Ayub, "Factors Influencing the Use of Learning Management System in Saudi Arabian Higher Education: A Theoretical framework," *Higher Education Studies,* 2012.

[6] R. R. G. R. S. Piyush A. Kalmegh, "Student Information System with Working," *International Journal for Research in Applied Science & Engineering*, vol. Volume 4, no. Issue III, March 2016.

8. Appendix – Plan of Actions