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System Analysis and Design
On
School Management System

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1 Introduction

1.1 Project Overview

We are working on 'P.S.N High School Management'

School management system is an information system to manage school related data and transactions. School system may consist of several branches within territory or round the globe. It contains various actors for example students, staff, teachers, student's parents, managerial staff etc.



Figure 1: School Management

1.2 Why this is chosen

Maintaining school operations is a crucial task for any educational institute. Manual work at school is a daunting task, and sometimes it contains errors. Technology has assisted us to overcome these issues. In this digital era, the availability of online software helps to automate most school operations efficiently. A web-based school management system benefits the school in many ways. From handling the administrating task to communicate with parents, all the major school operations can be handled efficiently with this system. But, what is school management software?

The school management system is software to accomplish daily school operations. The software enables schools to manage major school administrative and everyday duties such as admissions, registration, attendance, scheduling, etc. It centralized the school processes and increases the visibility of all functions among the school staff. Also, the school management software is designed to enhance efficiencies and effectiveness of school functions. There are many compelling aspects of the system that helps to reduce unnecessary and repetitious

work.

The online school management system software automates the school operations and reduces the burden on management. Efficient school management is the ultimate goal of any educational institute which can be fulfilled by the school management system software. In this article, you will get the key reasons to choose a web-based school management system software.



Figure 2: Why choose School Management System

1.3 Lacking of existing system

Paper-based processes
Online Registration
Admission and Enrollment
Course Management
Teacher Evaluation
Communication and Collaboration
Classroom Management Strategy
Student Monitoring
Revenue Management
Forecasting the academic achievement

1. Paper-based processes

Educational institutions are burdened by cumbersome paperwork and manual processes, and they find it difficult to maintain records on attendance, fees, admissions, transport, etc., and track the information they need. Using School Management System, automate academic processes to save time and reduce staff workload.

2. Online Registration

Students no more have to stand for hours in the queue to pay fees. Simplify reg-

istration and fee collections with online forms, with the ability to send automatic notifications, alerts and reminders via email, SMS alerts and push notifications from mobile devices.

3. Admission Enrollment

Colleges and Universities are finding hard to achieve admission and enrollment targets. Aligning people, processes and technology with simple user-friendly cloud-based education solution will help institutions to manage information from inquiry and application to admission and enrollment.

4. Course Management

Designing a course curriculum that can adapt to the changing needs of the institution is crucial. With a Course Management System institutions can accomplish a lot with limited resources. Create and track course-work, assignments, and exam papers in a conducive classroom environment to support the goal of graduating students.

5. Teacher Evaluation

Tracking the progress of teachers and evaluating the effectiveness of teachers' work is significant. Teacher evaluation system improves communication and collaboration between evaluators and teachers. Student's feedback will measure teacher's performance in the classroom and the automated evaluation process improves student learning skills, achievement and success.

6. Communication Collaboration

There is apparently no platform to provide seamless communication between students, administrators, staff and teachers. Moreover, increasing student discipline incidents happen as a result of big communication gap between students and teachers. Web and mobile-based education management system improves communication through instant notifications and alerts via email, SMS and push messages to keep the constituents informed at every step of the journey to build relationship and improve student retention.

7. Classroom Management Strategy

Schools are finding it difficult to handle tardy students, and solve indiscipline and behavior issues. Improve classroom environment with discipline tracking and behavior management system to easily handle tardy students and uninformed absences.

8. Student Monitoring

Teachers are struggling to monitor student's activities including attendance, leave, discipline, assignments, etc. School administrators are lacking in result-based monitoring tools to track student progress. Automate and streamline student attendance and absenteeism using student information system which delivers real-time status updates of student activities to support learning needs.

9. Revenue Management

It is difficult for institutions to cope with their finances and track their fee collections and contributions. Seamlessly connect and engage with students, parents and alumni to strengthen relationship and drive greater success.

10. Forecasting the academic achievement

Institutions are unable to manage information and there are endless delays in taking decisions based on complete analysis. Dashboard reports and intelligent

analytics are useful indicators for educators to examine attendance, assignments, grades, etc. and predict student outcomes. Using data analytics will help institutions to identify students at-risk and deploy resources to improve achievement and success.

1.4 Objective

Think positive to stay focused. Stay resilient.

Make time to read.

Manage your time.

Find time to relax.

Strive for excellence.

Build a strong network.

Build good study habits.

Attend seminars.

Develop patience to achieve your goals.

2 Analysis Of the System

2.1 Context Level Diagram

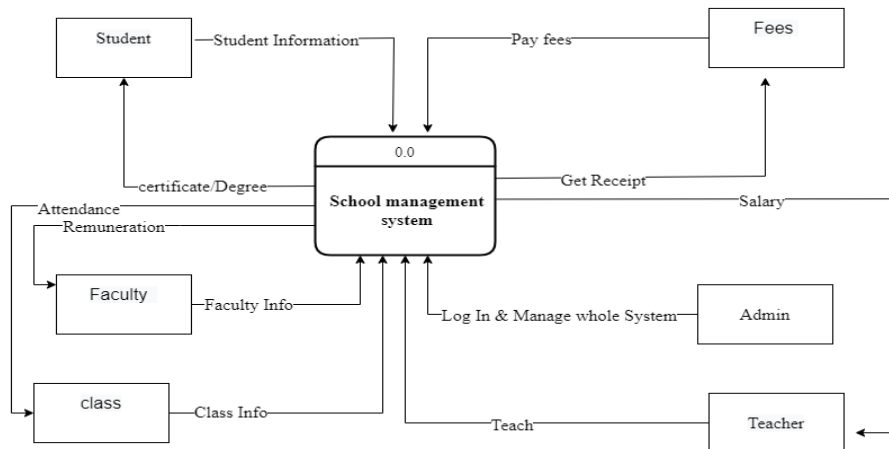


Figure 3: Context Level Diagram

2.2 0 Level DFD

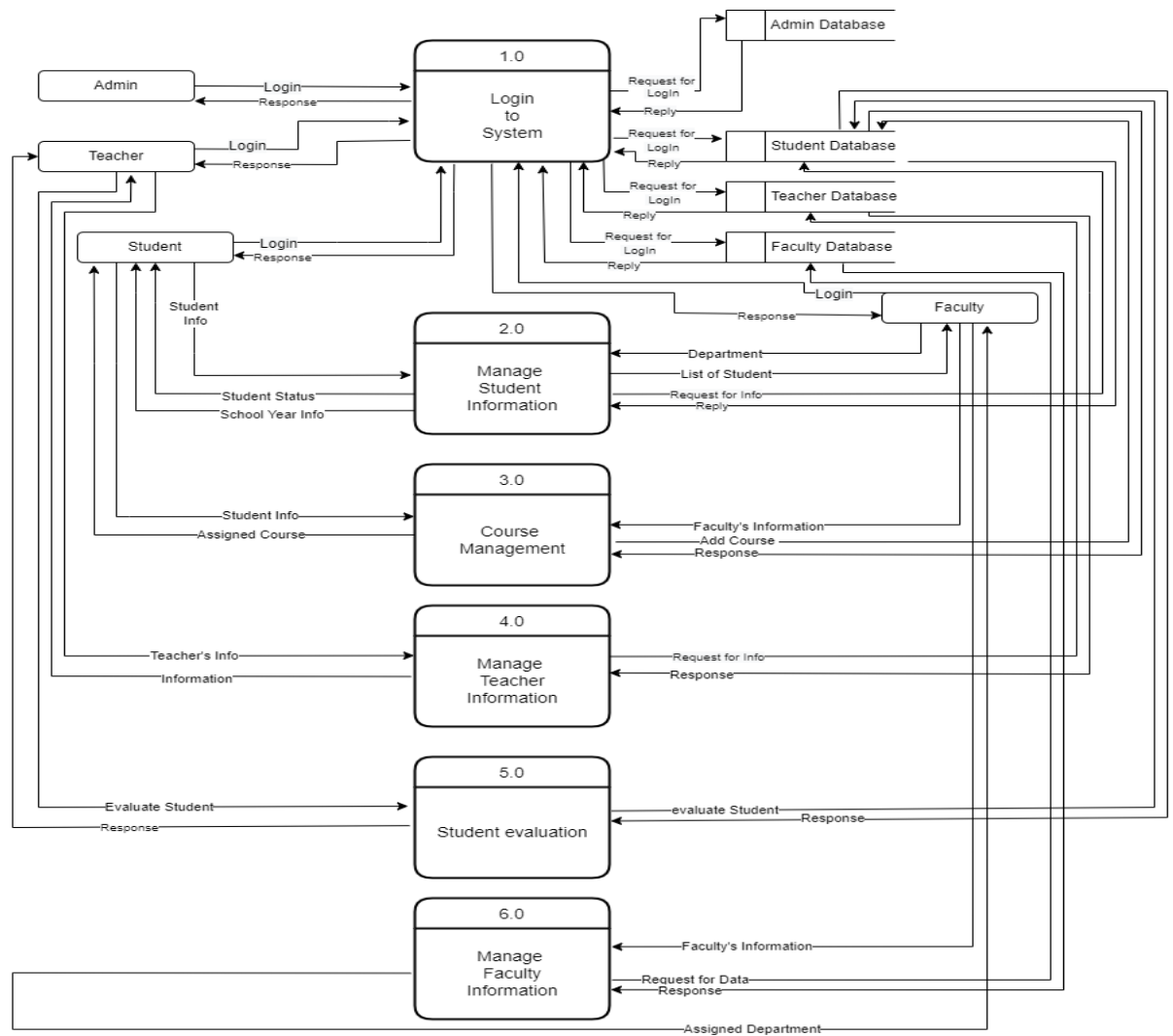


Figure 4: 0 Level DFD

2.3 ER Diagram

2.4 Use Case Diagram

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3 Feasibility Analysis

Feasibility study is a step towards identification of the candidate system as a feasible product. First the studies often pre-suppose that when the feasibility document is being prepared, the analyst is in a position to evaluate solutions. Second, most studies tend to overlook the confusion inherent in system development – the constraints and the assumed attitudes.

If the feasibility study is to serve as a decision document, it must answer three questions:

- Is there a new and better way to do a job that will benefit the user?
- What are the costs and saving of the alternatives?
- What is recommended?

3.1 Evaluation of solution

3.1.1 Technical Feasibility

A study of resource availability that may affect the ability to achieve an acceptable system. This evaluation determines whether the technology needed for the proposed system is available or not.

- Can the work for the project be done with current equipment existing software technology and available personal?
- Can the system be upgraded if developed?
- If new technology is needed then what can be developed? This is concerned with specifying equipment and software that will successfully satisfy the user requirement.

3.1.2 Operational Feasibility

It is mainly related to human organizations and political aspects. The points to be considered are:

- What changes will be brought with the system?
- What organization structures are disturbed?
- What new skills will be required? Do the existing staff members have these skills? If not, can they be trained in due course of time?

The system is operationally feasible as it very easy for the End users to operate it. It only needs basic information about Windows platform

3.1.3 Economic feasibility

Economic justification is generally the “Bottom Line” consideration for most systems. Economic justification includes a broad range of concerns that includes cost benefit analysis. In this we weight the cost and the benefits associated with the candidate system and if it suits the basic purpose of the organization i.e. profit making, the project is making to the analysis and design phase.

The financial and the economic questions during the preliminary investigation are verified to estimate the following:

- The cost to conduct a full system investigation
- The cost of hardware and software for the class of application being considered.
- The benefits in the form of reduced cost.
- The proposed system will give the minute information, as a result the performance is improved which in turn may be expected to provide increased profits.
- This feasibility checks whether the system can be developed with the available funds. The Hospital Management System does not require enormous amount of money to be developed. This can be done economically if planned judiciously, so it is economically feasible. The cost of project depends upon the number of man hours required.

4 Graphical User Interface

5 Future Work

* This system provides pre-defined features for every user that includes students, teachers, parents, as well as admin staff. The features for admin will include Instant announcements, Admission management, fee management, schedule management, staff management, and more.

* Features like online fees payment, attendance checking, homework details, result updates, and more will help the students and parents to be informed about their school work.

* Further, teachers may access the software for the better education with functionality that includes schedule updates, assigning homework, exam and result updates, Attendee recording, and more.

* School management software generally comes with essential features for the improved collaborate and communicate between the school and end users.

* School management system apps have made notable difference schools. Let's look at the how these apps will change the face of education in the future.

6 Conclusion

*School Management Systems are being identified as an appropriate method for managing information in schools.

*SMS was build based on real life situations in P.S.N High School, taking into consideration all possible situations and functionalities of the daily work in these schools.

*This system considered as a good first step in implementing performing online based information management in schools.

7 References