Czech University of Life Sciences Prague

Faculty of Economics and Management

<u>Department of Information Engineering</u>

Master's Thesis

The School Management System

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Sayed Shafayet Hossain, BSc

Informatics

Thesis title

The school management system

Objectives of thesis

The main goal of this thesis is to make a School management system for Bangladesh. Bangladesh is not like any other European Country. There School management system is different than here. They need one system. Like student management system + teacher management system
And account management system altogether. It will be an online system. I am thinking use PHP for the backend and HTML, CSS, jQuery, etc. for frontend

Methodology

The Diploma thesis will be divided into two sections: theoretical and practical. The theoretical part is based on an analysis of secondary data sources, Programming language documentation, mainly including Professional literature, online videos, Internet publications about the development of School management system platforms, and documents about management systems. The knowledge gained from the theoretical area of work will be the foundation for a further example of how to use this technique for developing a management system application name called Shahensha-a Edusoft.

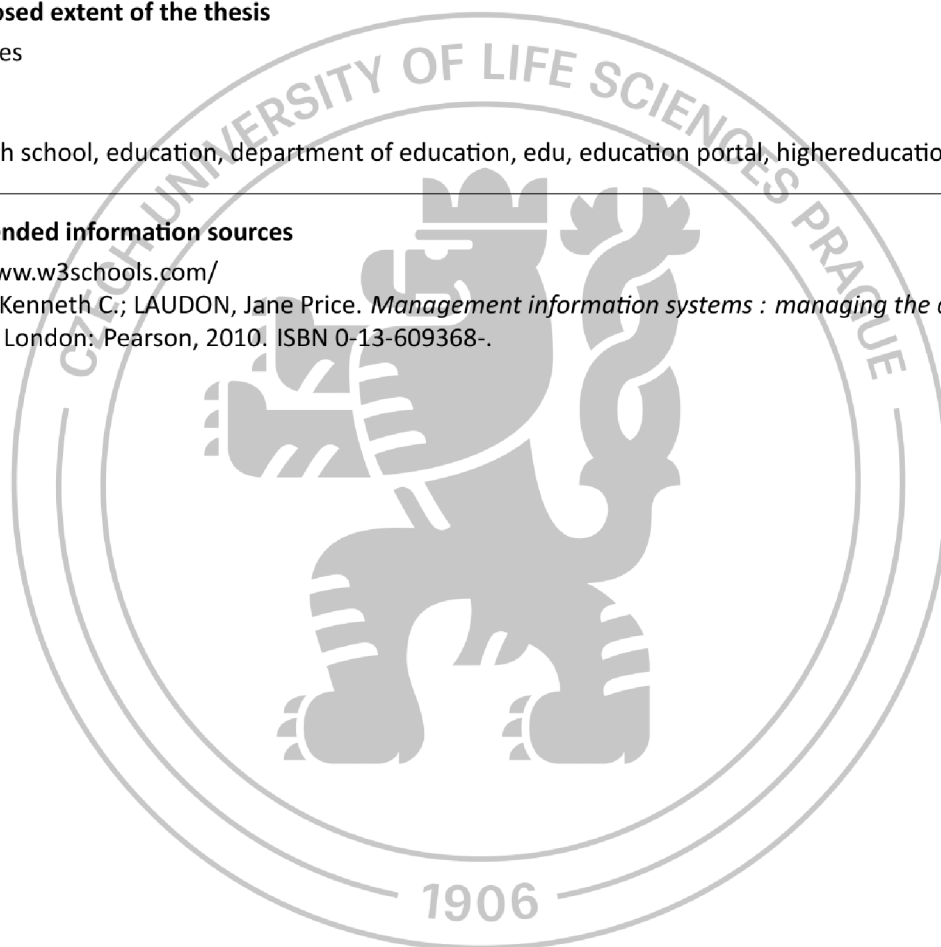**The proposed extent of the thesis**

60-80 pages

Keywords

school,high school, education, department of education, edu, education portal, highereducation

Recommended information sources

https://www.w3schools.com/

LAUDON, Kenneth C.; LAUDON, Jane Price. *Management information systems : managing the digital firm.* London: Pearson, 2010. ISBN 0-13-609368-.

Expected date of thesis defence

2023/24 SS – PEF

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Electronic approval: 31. 3. 2024

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Prague on 31. 03. 2024

Declaration

I declare that I have worked on my master's thesis titled "The School Management System" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 12.03.2023 _____

Acknowledgement

I would like to thank <u>Ing. Martin Pelikán, Ph.D.</u> and all other persons,for their advice and support during my work on this thesis.

Title of Master's Thesis in English

Abstract

A School Management System (SMS) is a comprehensive software solution that helps educational institutions manage and automate their administrative tasks. The system typically includes features such as student and staff information management, attendance tracking, grading and report card generation, scheduling, and financial management.

The SMS streamlines many of the time-consuming administrative tasks involved in running a school, reducing paperwork and manual data entry. It also provides a centralized location for school information, making it easier for administrators, teachers, and parents to access important data.

Some advanced SMS solutions may also offer features such as online learning platforms, parent-teacher communication tools, and data analytics for student performance tracking. These tools can help improve the learning experience for students while providing teachers and administrators with valuable insights into student progress.

Overall, a School Management System is an essential tool for educational institutions looking to streamline their administrative processes and provide a better learning experience for their students. **Keywords:** Here are some potential keywords to include when writing about School Management Systems: School Administration, Student Management, Staff Management, Grading System, Report Card Generation, Financial Management, Student Performance Tracking, Student Information System, School Information System, School ERP (Enterprise Resource Planning),School Software Solution, Automated School System, School Database Management

Title of Master's Thesis in Czech

Abstrakt

School Management System (SMS) je komplexní softwarové řešení, které pomáhá vzdělávacím institucím řídit a automatizovat jejich administrativní úkoly. Systém obvykle obsahuje funkce, jako je správa informací o studentech a zaměstnancích, sledování docházky, generování hodnocení a vysvědčení, plánování a finanční správa. SMS zjednodušuje mnoho časově náročných administrativních úkolů spojených s vedením školy, snižuje papírování a ruční zadávání dat. Poskytuje také centralizované umístění pro informace o škole, což usnadňuje administrátorům, učitelům a rodičům přístup k důležitým datům.

Některá pokročilá řešení SMS mohou také nabízet funkce, jako jsou online vzdělávací platformy, komunikační nástroje mezi rodiči a učiteli a analýzy dat pro sledování výkonu studentů. Tyto nástroje mohou pomoci zlepšit studijní prostředí pro studenty a zároveň poskytnout učitelům a správcům cenné informace o pokroku studentů. Celkově je systém řízení školy nezbytným nástrojem pro vzdělávací instituce, které chtějí zefektivnit své administrativní procesy a poskytnout svým studentům lepší studijní zkušenost.

Klíčová slova: Zde jsou některá potenciální klíčová slova, která je třeba zahrnout při psaní o systémech řízení školy: Školní správa, Studentský management, Personální management, Systém hodnocení, Generování vysvědčení, Finanční řízení, Sledování výkonu student, Studentský informační system, Školní informační system, Školní ERP (Enterprise Resource Planning), Školní softwarové řešení, Automatizovaný školní system , Správa školní databáze.

Table of Contents

1. Introduction

Education is one of the most important pillars of society, and it is essential to provide an efficient and effective learning environment for students. School Management System (SMS) is a software solution that helps educational institutions manage their administrative tasks efficiently.

SMS is designed to automate and streamline various school administrative tasks such as student and staff information management, attendance tracking, grading, report card generation, scheduling, andfinancial management. It eliminates manual data entry and paperwork, reduces the administrative burden, and enables staff to focus on student learning outcomes.

Modern SMS solutions come with additional features such as online learning platforms, parent- teacher communication tools, and data analytics for student performance tracking. These features enhance student learning outcomes and provide valuable insights to teachers and administrators for improved decision-making.

Overall, a School Management System is an essential tool that helps educational institutions manage their day-to-day operations more effectively. It simplifies administrative tasks, enhances studentlearning outcomes, and provides valuable insights to school leaders. This ensures a better learning experience for students and helps schools achieve their educational goals.

2. Objectives and Methodology

2.1 Objectives

The main goal of this thesis is to make a School management system for Bangladesh. Bangladesh is notlike any other European Country. There School management system is different than here. They need one system. Which have everything they need. Like student management system, teacher management system and account management system altogether. It will be an online system. I am thinking use PHP for the backend and HTML, CSS,jQuery and some framework etc for frontend. I am also try to solved some common objectives like

Streamline Administrative Tasks: The primary objective of an SMS is to streamline the administrative tasks involved in running a school. This includes tasks such as student information management, attendance tracking, grading, scheduling, and financial management. By automating these tasks, schoolscan reduce paperwork and manual data entry, saving time and resources.

Improve Communication: Effective communication between parents, teachers, and administrators is essential for a successful school environment. SMS solutions provide tools such as parent-teacher communication portals, online bulletin boards, and messaging systems, which improve communicationand collaboration between all stakeholders.

Increase Accountability: SMS solutions provide a centralized location for school information, making iteasier for administrators to track and monitor student and staff performance. This accountability can lead to improved outcomes and increased transparency.

Overall, the objectives of a School Management System are to improve the efficiency of administrative tasks, enhance the learning experience for students, improve communication and collaboration between stakeholders, increase accountability, and enable data-driven decision making.

2.2 Methodology

The Diploma thesis will be divided into two sections: theoretical and practical. The theoretical part is based on an analysis of secondary data sources, Programming language documentation, mainly including Professional literature, online videos, Internet

publications about the development of School management system platforms, and documents about management systems. The knowledge gained from the theoretical area of work will be the foundation for a further example of how to use this technique for developing a management system application name called Shahensha-a Edusoft. Creating a school management system requires various processes and approaches to guarantee that it fulfills the needs of all stakeholders, including administrators, teachers, students, and parents.

Here's a general technique you may use:

Requirement Analysis: Collect requirements from stakeholders such as administrators, instructors, students, and parents.

Understand the required functions, such as student information management, attendance monitoring, grade management, communication tools, and so on.

Feasibility Study: Assess the feasibility of the project in terms of budget, time, and resources.

Determine if the proposed system is viable and beneficial for the school.

System Design: Create a system architecture that describes the components and their relationships. Create a database schema for storing student, instructor, and administration data. Create wireframes or prototypes to represent the user interface.

Development: Choose relevant development technology (such as programming languages, frameworks, and databases).Use an iterative development approach, breaking down the project into smaller tasks or modules. Create the key functionality, such as user identification, student enrollment, attendance management, and gradebook.

Maintenance and Support: Offer continuing support to resolve any issues or defects that may develop. Regularly update the system to add new or improve current functionality. Gather user input so that the system may be improved regularly.

Throughout the process, stakeholders must be included at all stages to ensure that their requirements are met and that the end result satisfies their expectations. Following an agile methodology can also help you react to changing needs and produce a high-quality product on time.

3. Programing Language, and framework, Library

3.1 School management system

Having a school management system has several benefits for parents, students, teachers and educational institutions. Key benefits include:

• **Efficient administration**: By streamlining administrative duties like scheduling, grading, attendance monitoring and admissions, school management systems save time and effort in these areas.
   Better communication: With tools like messaging, announcements, and notifications, these systems allow teachers, students, parents, and administrators to communicate more effectively, promoting greater transparency and collaboration.

• **Centralized data management**: School management systems guarantee data integrity, accuracy and accessibility by keeping all staff and student information in a centralized database. This makes it easy to obtain and analyze.

• **Enhanced Parental Engagement**: By enabling parents to access their child's attendance records, academic achievements and school announcements through the system, parents can strengthen the bond between their child's school and home and become more involved in their child's education.
Greater accountability: School management systems promote academic rigor and accountability by holding instructors and students accountable for their work through features such as progress reports, automatic attendance monitoring and grading.

• **Resource Optimization**: By properly managing building, classroom and faculty assignments, these systems help optimize resource allocation and guarantee that resources are used effectively to meet the educational needs of students.

• **Personalized learning**: Tools for creating individualized lesson plans, monitoring student progress, and offering focused interventions are often incorporated into school administration systems. These features enable teachers to meet the unique learning needs of each student.

• **Data analysis and reporting:** These tools help administrators make data-driven choices and put evidence-based interventions into practice to improve educational outcomes by generating comprehensive reports and analyzes on a range of school activities and student performance topics.
• Scalability and flexibility: School management systems can be used in a variety of educational contexts because they are flexible and adaptable to meet the changing needs of all types of educational institutions, from small schools to large districts.

• **Cost and time savings:** School management systems help educational institutions save time and money by automating repetitive administrative tasks, reducing

paperwork, and increasing operational efficiency. This frees up staff members to focus more on teaching and learning activities.

In general, school management systems are essential to modernizing educational institutions because they increase productivity, communication, and student outcomes, all of which ultimately benefit the school community.

School-based management (SBM) has become the most prominent feature of public school management systems in most countries of the world, with the devolution of authority and responsibility to school-level decision makers.

Bandur, (2012) provides global trends and current developments of SBM in Indonesia in which SBM has developed partnership and participatory decision-making processes at the school level.

Blau et. al. (2013) examined e-leadership by secondary-school principals through the Mashov school management system, implemented in 500 Israeli schools to enhance school effectiveness.

To enhance e-leadership, (Blau et. al., 2013) recommends that school principals expand the implementation of school management systems among students and parents, assign e-leadership responsibilities, and monitor teacher activity levels within the system.

E-School Management System (e-SMS) is developed for teaching and administrative staff to manage school activities in high schools and for parents/teachers to get timely/reliable information about their child/student's performance.

Fetaji et. al.(2013) explain the functionality of an e-SMS and the benefits of electronic management.

Shelepko(2017) deals with the analysis of the activities undertaken by the academic community and the literacy partnership in the 60-70s of the 19th century, through the study of regulations, publications in the academic press and scientific contributions of the time that affect the school management system based on the conclusions of the activities of the academic community.

Shelepko (2017) reveals the progressive segments of society used to influence school management and highlights difficulties despite evaluating community initiatives to qualitatively transform secondary school management systems. To this end, strengthening school management system design and research and improving student management skills have become the focus of school development.

based on.

What we have in school management system

- Student Management
- Teacher Management
- Exam Management
- Tuition Fee Management
- Expense Management

- School Website Management

3.1.1 Student Management

Yue et. al.(2010) discuss the method of the management Informationization in higher education. On the basis of a comprehensive investigation and analysis on the student management in higher education, Yue et. al. (2010) establish the models of the college students' management informationization by adopting the advanced information technology, and construct the student management informationization platform.

The work of managing student file that played an important role in the operation of the protection of school teaching is a juncture of college teaching management and student management. In September 2005,there was a certain Autonomy in process of managing student in the colleges and universities after the ministry of education promulgated "the colleges and universities student management stipulation",Through summarize and compare of University student status management actuality, Pei (2013) find colleges and universities management work now still focused on the "management" to the student. For changing this situation and building student status management system with medical education regular, Peking University Health Science Center found an effective way in combination with "management" and "protection" into the work of student status management from the view of how to integrate " holistic education" into University student status management work.

With the deepening of the higher education reform, the disadvantages of traditional college student management mode become prominent, and the exploration on college student management mode under the new situation becomes one of the urgent subjects of higher education management theory study (Su et. al., 2015).

Su et. al.(2015) expounded in detail the current management mode of colleges and universities, and proposed the new college management mode based on subjectivity, research and contract on that basis.   Student management activities start from registration, until student services that have been arranged neatly, may not run optimally, if schools are still manual in tidying student data collection. (Ikhwan et. al., 2019) aim to determine how schools can create student management information systems that are feasible and effective.

  Sari et. al. (2021) aim to empirical evidence the passion of college student to the literacy of financial management for student in management department of Sarjanawiyata Tamansiswa University and to find empirical evidence the improvement of literacy and interest of economic student in financial management. The beneficial Research such as for developing a learning achievement of college student in financial management, for developing financial management learning learning, and supporting college student to increase interest in financial management.

Student management as a process that regulates all forms of student activity becomes a measure of success in an effort to achieve educational goals effectively and efficiently. With the library research method (Arifin, 2022) show that student management produces activities that can support the development of student potential in the form of providing services to students in an educational institution,

both inside and outside of classroom learning hours; student development can be carried out on new student orientation, discipline development by producing student attitudes, appearance, and behavior in accordance with the order of values, norms, and applicable provisions;The realization of student management has three main tasks that must be considered, namely acceptance of new students, learning progress activities, and guidance and discipline development.

  Other influential work includes (Rohrbeck, 1992), (Gao et. al., 2015), (Zhao, 2017), (Fauzi, 2019).

3.1.2   Teacher Management

It examines what has prompted governments to decentralize teacher management functions, how they have done so, and which decentralization mechanisms have been most effective.

(Gaynor, 1998) aim to help guide policymakers in refining strategies that will improve teaching and learning in the classroom.

Its purpose was to establish a management information system to guide and assist officials of the Department of Ethnic Minority Education (DEME) of the State Education Commission (SEdC) and county level ethnic minority education officials in conducting research on the development of a county-level teacher management information system (Hongwei et. al., 2002).

(Hongwei et. al., 2002) experience will be used to guide the development of a national ethnic minority teacher management information system.

Clunies-Ross et. al. (2008) examine how the use of proactive and reactive strategies is related to teacher stress and student behavior. Teachers completed four questionnaires which gathered information on demographics, disruptive student behavior, teacher management strategies, and teacher self-reported stress.

 Based on case studies of education systems and practices in eight English-speaking African countries Mulkeen (2009) examine issues of teacher supply, deployment, management and finance. Problems with teacher deployment may result in inefficient utilization of the teachers available, and those teachers effectiveness may be further reduced by weak teacher management and support systems.

The contribution of Casas et. al. (2015) was to analyze the ways in which teacher management and trait EI affect involvement in bullying aggression and victimization. Self-report questionnaires were administrated; four of the dimensions of the Schoolwide Climate Scale: Bullying victimization; bullying aggression; positive teacher management; and negative teacher management.

 (Kontagora et. al., 2018) report on a qualitative research project conducted in Nigeria's Kaduna and Katsina States.

Four aspects of teacher management were studied: recruitment and deployment; pay and remuneration; training and support; and aspirations and expectations.   Other influential work includes (Gallagher et. al., 1987), (Copeland, 1987), (Ratcliff et. al., 2010), (Chen et. al., 2020).

Exam Management
A safe electronic exam management system with all test-related data in digital format is presented by Castellanà-Roca et al. (2006). According to Castellà-Roca et al. (2006), a cryptographic system must be implemented at each exam stage in order to meet the required security standards. Bardesi et al.

2014 provide a description of the KAU-eExam e-exam management system. An empirical analysis was carried out on a genuine examination example by Bardesi et al. (2014) to ensure the feasibility of the suggested system. Kaiiali et al. (2016) seek to pinpoint several weaknesses that could compromise exam security in m-learning settings and to create suitable security services and solutions that can be implemented to guarantee exam security.

Additionally, it seeks to combine the generated secure exam system with an already-existing.
There are two components to the exam management system: the publish result management system, the take mark management system, and the grade according to the system.

Result management system :-In parallel, the Synergi Project was formed as part of an integrated HSE Management System to enable experience transfer and efficient incident handling. Grundt (1996) highlight the significance of having a management structure that makes it easier to carry out the necessary corrective action, learning from prior failures, and having instruments accessible for better loss control.

Poon et al. (2004) conducted a survey with a response rate of 64% among 262 doctors employed in 15 internal medicine practices connected to two sizable metropolitan teaching institutions. Physicians were also asked to rank the elements of a new test result management system that they would find helpful (Poon et al., 2004). Results of a nationwide survey conducted by (Shirts et al., 2009) on provider management of and satisfaction with laboratory testing in the nursing care environment

Mark management system :-Generally speaking, the goal is to deliver a suitable solution at the lowest possible cost, all the while putting in enough labor to ensure that the accuracy criterion is met in all extremely important areas (Sydney et al., 1979).

The architecture and structure of the Mark Management System for Integration Surveys in New South Wales will be covered by Sydney et al. (1979) so that surveyors using the system may grasp the general idea before getting into the specifics of each component.

The usage of document mark-up (using EXtensible Mark-up Language (XML), HyperText Mark-up Language (HTML), and Scalable Vector Graphics (SVG)) and a facetted categorization technique are three major technologies explored by (Liu et al., 2007). The research's Engineering Document Content Management System (EDCMS) shows that as information producers (Liu)

3.1.1 Tuition Fee Management

Ferrer et. al., 2014) sought to gather relevant data and other information that policy-makers and the management of PNU (Philippine Normal University) can utilize in examining the efficiency and sustainability of the existing tuition policy of the university.
(Ferrer et. al., 2014) focus on the three important determinants of tuition fee rates:

(1) the cost of degree programs being offered by PNU ;
(2) the ability to pay of its students ; and
(3) the effect of the inflation rate on the real value of the tuition fee rate of the university.

A comparative analysis of the tuition fee rates of other Higher Education Institutions (HEIs) in offering teacher education was done to compliment more insights to policy-makers and the management of the university.

A secured web technology framework using with Java, JSP as well as relational database management system in background for building transparent easy deployable and maintainable system have simple menu driven system.
 Shrey (2016) choose MySQL technology like representative relational database management system because has: portability, scalability, speed, is easy to use, is open source, is widely used by web developers and provides good security.

The objective of Surtiati et. al. (2017) were to analyze cash flow and compare tuition income in a State University with Legal Entity of "XYZ" for its first year TPB students (the First Common Year) and of the first year until the fourth year before and after implementation of the single tuition fee system and formulate the management policies for the tuition income after the single tuition fee system. Management policies tuition income after the single tuition fee system payment delays should be minimized so that tuition fee funds can be completely collected.

Yulianto et. al. (2020) study data warehouse system for multidimensional analysis of tuition fee level in higher education institutions in indonesia. A simple but sufficient method was introduced using the open-source following the business requirements of HEI's administrator. The DW system described in this paper can be used as a guideline for tuition-fee-level management for HEIs in Indonesia.
 The results show that the increase rate of tuition fees decreased after 2011, with government subsidies increasing. Polynomial regression reveals that, based on resources, universities behave differently in their spending.
With these results Lee et. al. (2020) suggest a method to lessen information asymmetry and goal conflict, such as a performance-based research system and an incentive-based budget system in universities. Based on this problematic situation, Universitas Teknokrat Indonesia grants the students who have good academic performance with tuition fee aid program. The purpose of Sulistiani et. al. (2020) is the classification of grant recipients by using decision tree C4.5 algorithm.
Other influential work includes Bain (2015), Shofiyyah et. al. (2018), Pranatawijaya et. al. (2018), Hamdani (2020).

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3.1.3   Expense Management

This review is aimed at evaluating consistency between online resources and published guideline statements in postconcussion return-to-play (RTP) decisions (Swallow et. al., 2017). Five websites were selected through a Google search for RTP after concussion, including a federal government institution (Centers for Disease Control and Prevention) website, a national high school association (National Federation of State High School Associations) website, a popular nationally recognized medical website for patients (WebMD), a popular parent-driven website for parents of children who participate in sports (MomsTeam), and the website of a

private concussion clinic (Sports Concussion Institute), along with a university hospital website (University of Michigan Medicine).

The purpose of this community service is to give assistance to the public relation of SMK 9 Wagir (Vocational High School 3 Wagir) to elevate the school's credibility by designing a website for the school to introduce the institution to the public. The method used in elevating the school's credibility involves: (1) conducting workshop in public relation management (2) conducting website management workshop (3) doing website designing assistance (4) evaluating the whole process (Deddiliawan et. al., 2019).

Laugi (2020) was conducted using the library method, where the author collects various materials such as books and scientific articles, which are further elaborated to obtain a broader and deeper understanding of the use of websites in school management. Sixth, to ensure the occurrence of web-based school management , the basic principles of school web management must be carried out properly.

Kata kunci: Learning Managemen System (LMS), Website, Sekolah Menengah Kejuruan Abstract [Design of Web-Based Learning Management System (LMS) in Vocational High School of Tunas Harapan, Pati Regency] Currently, the world of education has taken advantage of advances in digital information and communication technology. (Dewanto et. al., 2020) study rancang bangun learning management system (lms) berbasis web di sekolah menengah kejuruan (smk) tunas harapan kabupaten pati. One school that has not used the e-learning method is SMK Tunas Harapan Pati.

Yauma et. al. (2020) designed a website-based E-learning application system with the aim of helping the learning and teaching process at MA Alwutsqo Depok City. (Yauma et. al., 2020) study learning management system (lms) pada e-learning menggunakan metode agile dan waterfall berbasis website. The design of this information system uses waterfalls and system development is carried out using the Agile method. Keywords: E-learning, Webite, Metode Waterfall, Metode Agile, Learning Management System (LMS).

The SDHE management model of elementary schools based on the website provides a significant increase in SDHE management quality and the quality of information systems in the excellent category. (Suryo et. al., 2021) study management model of school dental health effort (sdhe) of website-based for improving quality of information system at elementary school. The SDHE of website-based can be used to evaluate elementary school health manageme.

This could be due to difficulties in creating and on the website of each school. (Yani et. al., 2021) study content management system for school information website. From these problems, researchers innovated to create a Content Management System (CMS) for school websites, especially at SMP Negeri 29 Samarinda.

Other influential work includes (Indarso et. al., 2020), (Koesoemadinata et. al., 2021), (Supriyanto et. al., 2022).
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Other influential work includes Indarso et. al. (2020), Koesoemadinata et. al. (2021), Supriyanto et. al. (2022).

3.2 What should we be careful about

Does a school's management system track and measure risk in an appropriate way? What specifics about the cost structure of the school administration system are needed? What impact do goals and mission have on your organization's school management system procedures? Are things handled to a satisfactory conclusion? Were any significant problems with the school management system missed?
The most valuable job is defining, designing, building, and implementing a process to fulfill a target or solve a difficulty. In EVERY department, organization, business, and group.

There ought to be a procedure unless this is a one-time, one-use project. That method needs to be created by someone with a complex enough viewpoint to ask the correct questions, regardless of whether AI, humans, or a combination of the two manage and carry out the implementation. Someone with the ability to inquire
(Ingebrigtsen et. al., 1996) focus on economic aspects of MHI management. It is concluded that routine early CT-scan is the most reliable and cost saving management procedure after MHI.
 Dhaliwal et. al. (2003) assert that the tax expense is a powerful context in which to study earnings management, because it is one of the last accounts closed prior to the earnings announcement. (Dhaliwal et. al., 2003) hypothesize that changes from 3rd to 4th quarter effective tax rates (ETRs) are negatively related to whether and how much a firm's earnings absent tax expense management miss analysts' consensus forecast, a proxy for target earnings.

 Dhaliwal et. al. (2004) assert that the tax expense is a powerful context in which to study earnings management, because it is one of the last accounts closed prior to earnings announcements. (Dhaliwal et. al., 2004) measure earnings absent tax expense management as actual pre-tax earnings adjusted for the annual ETR reported at the third quarter. (Dhaliwal et. al., 2004) provide robust evidence that firms lower their projected ETRs when they miss the consensus forecast, which is consistent with firms decreasing their tax expense if non-tax sources of earnings management are insufficient to achieve targets.

The objective of (Kwon et. al., 2008) is to benchmark the wireless mobile communication service providers in the USA for the relative efficiencies of assets and expenses in conjunction with revenues. The impact of merger activities on the

efficiencies will be investigated. Design/methodology/approach – The authors use data envelopment analysis (DEA) to measure comparative efficiencies of wireless mobile communication companies.

Siringoringo (2012) analyze the influence of ownership and specific characteristic of banks on the capital structure and the intermediation function of commercial banks in Indonesia. Towards the bank intermediation, with a total effect of 27.01%, the ownership structure, profitability, bank size, credit risk, expense management and capital structure influence the banks intermediation function.

The stated ratio, such as size, capital, credit risk, expense management, inflation, economic growth and significant effect on earnings. (Egan et. al., 2013) study pengaruh internet banking terhadap kinerja perbankan di indonesia (studi empiris pada bank yang listing di bei). Liquidity variable brings non-significant positive effect on earnings.

Little data exist on the effect of hospital resource spending on patient HCAHPS ratings. (McCaughey et. al., 2013) examine environmental services (EVS) expenses and HCAHPS ratings on hospital cleanliness and overall patient experience ratings to determine how these variables are related. A value score was calculated for each quadrant of the matrix, and it was determined that organizational value derives from management of expense spending rather than pursuit of high HCAHPS scores.

Fan et. al. (2015) investigate the choice of COGS versus SGA misclassification that managers make to meet different profitability benchmarks. For SGA, (Fan et. al., 2015) show that unexpected SGA contain a significant expense misclassification effect, suggesting the importance to control for expense misclassification effect for future RAM research.

Gleason et. al (2017) investigate the consequences of tax-related internal control material weaknesses (ICMWs) for financial reporting. The results suggest that tax-related ICMWs were initially associated with greater tax-expense management but that SOX internal control assessments subsequently improved the quality of financial reporting by reducing opportunities for tax-expense management.
Other influential work includes (Azizah et. al., 2017).

3.3 Language, Framework

To make this system we need some Front End and Back End languages and frameworks. There are numerous languages and frameworks available for building the system. Here are some of the most popular ones:

HTML:- A markup language used in computer science to build web pages that are connected by hyperlinks is called Hypertext Markup Language, or HTML. The primary language used to create pages in the World Wide Web system, which permits the posting of documents online, is called HTML. With cascading styles, usually known by its acronym CSS, the page's appearance may also be improved. Additionally, a programming language (like JavaScript) is frequently employed, improving the user experience of the page.

The language is an implementation of SGML, a large universal markup language that was previously established (Standard Generalized Markup Language). Web browser development has an impact on HTML development, and browser development has an impact on the language's definition.

CSS:- In computer science, cascading styles, also known as Cascading Style Sheets (abbreviated CSS) in English, are a language used to describe how components appear on websites written in HTML, XHTML, or XML.

Håkon Wium Lie was the original author of the proposal, which was created by the standards body W3C. The CSS1–CSS3 versions were published. The CSS 2.1 revision was finished on June 7, 2011 [1]. The primary goal is to provide designers the freedom to distinguish a document's look from its organization and content. The HTML language was originally intended to make this possible, but it evolved in a

PHP:- PHP is a versatile programming language designed primarily for web development.[8] Danish-Canadian programmer Rasmus Lerdorf first developed it in 1993, and it was made available in 1995. The PHP Group is currently responsible for producing the PHP reference implementation. Originally standing for Personal Home Page, PHP is now an acronym for PHP: Hypertext Preprocessor, a recursive initialization.

PHP interpreters, which can be implemented as modules, daemons, or Common Gateway Interface (CGI) executables, are typically used on web servers to parse PHP code. The outcome of the interpreted and run PHP code on a web server may be any kind of data, including binary picture data or produced HTML, and it could.

Java:- One of the Indonesian Greater Sunda Islands is Java[a]. The Java Sea borders it to the north and the Indian Ocean to the south. Home to over 56% of Indonesia's population, Java is the most populated island in the world, with a population of 151.6 million. Jakarta, the capital of Indonesia, is located on the northwest coast of Java.

Java was the site of several of the most well-known incidents in Indonesian history. It served as the hub of the Islamic sultanates, the great Hindu-Buddhist dynasties, and the colonial Dutch East Indies. In addition, Java served as the focal point of Indonesia's independence movement in the 1930s and 1940s. Indonesia is politically, economically, and culturally dominated by Java. Of the eight UNESCO

jQuery :-jQuery is a JavaScript toolkit that makes it easier to navigate and manipulate the HTML DOM tree, as well as handle events, CSS animations, and use Ajax. It is free, open-source software released under the permissive MIT License. As of August 2022, jQuery was utilized on 77% of the top 10 million websites.According to web research, it is by far the most extensively deployed JavaScript library, with at least three to four times the usage of any other JavaScript library.The syntax of jQuery is intended to facilitate document navigation, DOM element selection, animation creation, event handling, and Ajax application development. jQuery also enables developers to build plug-ins on top of the JavaScript library. This allows developers to build abstractions for low-level interaction.

Bootstrap :-Bootstrap is a free and open-source cascading style toolkit for building websites and online apps. It includes HTML and CSS design templates for modifying typography, forms, buttons, navigation, and other interface components, as well as optional JavaScript extensions. To utilize Bootstrap, you must have a basic understanding of HTML and CSS. Interactive components like buttons, boxes, menus, and other fully configured and artistically processed elements can only be introduced using HTML and CSS.

3.4 Front End

For making the School management system, the language we are going to us they are HTML, CSS, JAVA, etc.

Skeleton:-For making the website and system skeleton we are going to use HTML 5. we can use a text editor like Notepad or Sublime Text etc to create a new file and save it with the .html extension.

In an HTML file, you need to add the basic structure that includes the document type declaration, the HTML tag, the head section, and the body section.

Once we have the basic structure in place, we can start adding content to your webpage. We can use various HTML tags to add headings, paragraphs, images, links, and other types of content.

When we are satisfied with our webpage, we can publish it on the web. We need to host our HTML file on a web server and make it accessible to the public.

These are the basic steps to using HTML in a website. HTML is a simple language, but it can be used to create complex web pages and web applications.

Style:-CSS (Cascading Style Sheets) is a technology used for styling the HTML elements of a website. CSS allows developers to control the visual appearance of a website, including the layout, typography, colors, and other visual elements. By separating the presentation of a website from its content, CSS makes it easier to create websites that are both visually appealing and easy to maintain.

CSS works by applying styles to HTML elements through selectors. Selectors identify which HTML elements the styles should be applied to, and the styles themselves are defined in CSS rules. CSS rules consist of a selector and a set of style declarations, which specify the properties and values that should be applied to the selected elements.

CSS can be used to create a wide variety of visual effects, including responsive layouts that adapt to different screen sizes, animations, and other dynamic effects. CSS is an essential technology for modern web development and is widely used in the creation of websites and web applications.

On-page action:- We use java for some one-page actions.

3.4.1 Framework and Library

In this project, we use some frameworks like Bootstrap 4, JavaScript, etc. We also use somelibraries for example Fpdf, jQuery etc.

Bootstrap:- Bootstrap is a popular front-end framework used for building responsive and mobile- first websites and web applications. It is an open-source framework developed by Twitter, and it includes HTML, CSS, and JavaScript components, as well as a set of pre-designed templates and styles.

Bootstrap is designed to help developers create websites and web applications quickly and efficiently, by providing a set of pre-built components and styles that can be easily customized and adapted to different design requirements. The framework includes a grid system, which allows developers to createresponsive layouts that adapt to different screen sizes, as well as a variety of UI components, such as navigation menus, forms, buttons, and more.

Bootstrap also includes JavaScript components, such as modal windows, tooltips, and carousels, which can be used to add interactivity and dynamic behavior to websites and web applications.

Overall, Bootstrap is a popular and widely used front-end framework that can help developers createresponsive and mobile-first websites and web applications quickly and efficiently while ensuring a consistent and cohesive design across different devices and platforms.

JavaScript:- A JavaScript framework is an application framework written in JavaScript, where programmers can manipulate the functions and use them for their convenience. Frameworks are more adaptable for web design, and hence most website developers take to them.

jQuery:- jQuery is a popular JavaScript library designed to simplify HTML document traversal,event handling, and animation for web developers. While it is often referred to as a framework, it is technically a library since it focuses on specific functionality rather than providing a complete application development framework.

jQuery includes a wide range of features and functions that make it easier for developers to manipulatethe DOM (Document Object Model), handle events, and create dynamic, interactive web applications. Some of the key features of jQuery include:

CSS manipulation: jQuery allows developers to easily modify CSS styles for HTML elements,creating dynamic and visually appealing effects on web pages.

DOM manipulation: jQuery provides a simple and efficient way to traverse, filter, andmanipulate the DOM, making it easier to create complex HTML layouts.

Event handling: jQuery includes a wide range of functions for handling events, such as mouseclicks, keyboard input, and page loading, allowing developers to create responsive and interactive web applications.

AJAX: jQuery includes built-in support for AJAX (Asynchronous JavaScript and XML), whichallows web applications to communicate with servers and retrieve data in the background, without requiring a page refresh.

Overall, jQuery is a powerful and versatile JavaScript library that can help web developers create dynamic and interactive web applications more efficiently. While it is not a full-fledged application development framework, it provides many of the core features and functions needed to create modernweb applications.

3.5 Back End

To complete the project in Back-End we use PHP. PHP (Hypertext Preprocessor) is a server-side .scripting language used in web development to create dynamic and interactive websites. PHP is designed to be embedded within HTML pages and can be used to perform a wide range of tasks, including data processing, form handling, database interaction, and more.
PHP works by executing on the server before the HTML is sent to the client's web browser. When a user requests a PHP page, the server processes the PHP code and generates an HTML output, which is then sent to the client's web browser. This allows PHP to generate dynamic content based on user input and other variables. PHP can be used to create a wide variety of web applications, including blogs, e-commerce websites, content management systems, and more. PHP is also

3.5.1   Framework and Library

In back end we going to use one framework which is FPDF. FPDF is a free and open-source PHP library used for creating PDF documents programmatically from within PHP code. It is not a framework, but rather a stand-alone library that canbe integrated into PHP applications to generate PDF documents on the fly. FPDF is designed to be lightweight and easy to use, and it includes a variety of functions for creating PDF documents, including adding text, images, and other content, as well as defining page layouts andformatting options.

FPDF is not as feature-rich as some other PDF libraries, but it is well-suited for simple applications andprojects that require basic PDF generation functionality. It is also easy to learn and use, making it a popular choice for developers who need to generate PDF documents from PHP code.

Overall, FPDF is a useful PHP library for generating PDF documents programmatically from within PHP code. While it is not a framework, it can be

easily integrated into PHP applications to provide basicPDF generation functionality.

3.6 Database

(Adiba et. al., 1980) propose the notion of system supported snapshots which periodically reflect selected portions of the database so as to allow applications to view the database "as of" an earlier time without having to execute at that time. (Adiba et. al., 1980) discuss snapshots semantics and implementation and (Adiba et. al., 1980) show the importance of the snapshot concept in centralized and distributed databases.

(Coltheart, 1981) describe a computerised database of psycholinguistic information. Some examples are given of the use of the database for selection of stimuli to be used in psycholinguistic experimentation or linguistic research.

SDM is a high-level semantics-based database description and structuring formalism (database model) for databases. (Hammer et. al., 1981) study database description with sdm: a semantic database model. This database model is designed to capture more of the meaning of an application environment than is possible with contemporary database models. An SDM database description can serve as a formal specification and documentation tool for a database ; it can provide a basis for supporting a variety of powerful user interface facilities, it can serve as a conceptual database model in the database design process; and, it can be used as the database model for a new kind of database management system.

Database systems with production rules are referred to as active database systems, and the of active database systems has indeed been active. (Dayal et. al., 1995) summarize current work in active database systems; topics covered include active database rule models and languages, rule execution semantics, and implementation issues.

(Paton et. al., 1999) provide a timely survey of the field from the point of view of some of the subject's most active researchers. Database researchers and developers will find this book provides a valuable overview of the design and use of active database systems.

(Chays et. al., 2000) present an approach to testing database applications. In testing such applications, the state of the database before and after the user's operation plays an important role, along with the user's input and the system output.

Between October 2000 and December 2000, (Sim et. al., 2002) collected a database of over 40,000 facial images of 68 people. (Sim et. al., 2002) describe the imaging hardware, the collection procedure, the organization of the database, several potential uses of the database, and how to obtain the database. (Angles et. al., 2005) study the RDF model from a database perspective. From this point of view it is compared with other database models, particularly with graph database models, which are very close in motivations and use cases to RDF.

Yin et. al., (2011) study sdumla-hmt: a multimodal biometric database. The acquisition and content of a new homologous multimodal biometric database are presented. The database is available to research community through http://mla.sdu.edu.cn/sdumla-hmt.html. Other influential work includes (Hanson et. al., 1993).

4 Practical Part

WHAT WE HAVE TO DO. HOW WE DO IT

4.1   WHAT WE HAVE TO DO.

what we have to do is written below

- We need an accounting system
- A teacher management system
- Student management system
- A website
- A database
- auto result-making system
- payment making system

4.1.1   Accounting System

Income:- In this system, we have to collect tuition fee from every student in digital form and who student, in which month he paid tuition fee, whether he paid full amount, whether he has any debt if so then add that amount in this month etc and All With the information to be stored in the database. how much tuition fee collected this month , how much still unpaid etc we have to show. For that we need a database table with some information like f_id INT(3), st_id INT(11),addme INT(11), card_f INT(5),lib_f INT(5),s_un INT(5), soft_INT(5), jan INT(11), janf INT(11), jancon INT(11), feb INT(11), febf INT(11), febcon INT(11),mar INT(11), marf INT(11), marcon INT(11),ap INT(11), apf INT(11), apcon INT(11), may INT(11), mayf INT(11), maycon INT(11), jun INT(11), junf INT(11), juncon INT(11), july INT(11), julyf INT(11), julycon INT(11), aug INT(11), augf INT(11), augcon INT(11), sep INT(11), sepf INT(11), sepcon INT(11), oct INT(11), octf INT(11), octcon INT(11), nov INT(11), novf INT(11), novcon INT(11),dec INT(11), decf INT(11), deccon INT(11). Here f_id INT(3) PRIMARY KEY and st_id is FOREIGN KEY and 12 month (First 3 letters of the month) 12 month fine is next(First 3 letters of the month and f)   and condition of 12 month (First 3 letters of the month and con) (paid or unpaid)

 Expenses:- We also need to take all the expenses in digital form. like, paying the teacher's salary, staff salary, school maintenance costs, and other costs. You have to collect all this information and make all this information digital format start store in to the database. We are store this information for future uses. like if someone want to see how these expenses happen they can see from the database .for that we have to make a database below

```
CREATE TABLE Expenses (
    e_id INT(5) AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100)
    number INT(11),
    es VARCHAR(500)
    de DATE
);
```
Hare name for the person who use that money his phone number goes to number, es for the field of use and de is date of use.

Profit and loss:- Account to the income and expenses we have to show the profit and loss of thes school each month. For that we have sum of all the tuition and sum of the expenses and we have to calculate all and show Profit and loss.

EARNINGS (MONTHLY)

```php
<?php
$sql = "SELECT   sum(addme+card_f+lib_f+s_un+soft_f+jan) as 'tolat' FROM `fee`";
$run_query=mysqli_query($connect,$sql);
$data=mysqli_fetch_array($run_query);

    $fe=$data['tolat'];
    echo $fe;
    ?>
```

EXPENSE (MONTHLY)

```php
<?php
$sql = "SELECT  sum(ae) as 'to' FROM `expense`";
$run_query=mysqli_query($connect,$sql);
$data=mysqli_fetch_array($run_query);
    $ex=$data['to'];
    echo $ex;
    ?>
```

ACCOUNTANT HAVE (MONTHLY)

```php
<?php
$sql = "SELECT   sum(addme+card_f+lib_f+s_un+soft_f+jan) as 'tolat' FROM `fee`";
$run_query=mysqli_query($connect,$sql);
$data=mysqli_fetch_array($run_query);

    $fe=$data['tolat'];


$sql = "SELECT  sum(ae) as 'to' FROM `expense`";
$run_query=mysqli_query($connect,$sql);
$data=mysqli_fetch_array($run_query);
```

```
    $ex=$data['to'];



    $at=$fe-$ex;

    echo $at;
?>
```

4.1.2   Teacher management system

A teacher management system is a software application or platform designed to manage and organize information related to teachers in an educational institution. The system typically provides features such as teacher scheduling, performance tracking, attendance management, information, communication tools, and reporting.

The system allows administrators and school management to easily manage teacher data, including personal information, teaching assignments, qualifications, and performance metrics. It can also streamline the teacher evaluation process by automating performance reviews, tracking progress toward goals, and generating reports.

A teacher management system can help schools to ensure that their teachers are effectively utilized and supported, which can improve overall student outcomes. It can also help to reduce administrative workload and improve communication between teachers and school management.

When choosing a teacher management system, it is important to consider factors such as ease of use, compatibility with existing technology infrastructure, and the specific needs of the educational institution. Many software vendors offer customizations and integrations to meet the unique requirements of different schools and districts.

4.1.3   Student Management System

A student management system is a software application or platform designed to manage and organize information related to students in an educational institution. The system typically provides features such as student registration, enrollment management, attendance tracking, academic progress monitoring, communication tools, and reporting.

The system allows administrators and school management to easily manage student data, including personal information, academic performance, attendance, and disciplinary records. It can also help to automate tasks such as student scheduling, course registration, and grade reporting.

A student management system can help schools to ensure that their students are effectively supported and their academic progress is tracked. It can also help to improve communication between students, teachers, and school management.

When choosing a student management system, it is important to consider factors such as ease of use, compatibility with existing technology infrastructure, and the specific needs of the educational institution. Many software vendors offer customizations and integrations to meet the unique requirements of different schools and districts. Some student management systems also offer features such as learning management systems (LMS) which provide online learning tools and resources for students.

4.1.4 Website

A school website is a website designed to provide information about a school, its programs, policies, and activities to students, parents, staff, and the general public. A well-designed school website can bean effective communication tool for the school community and can help to promote the school's brandand reputation.

A school website typically includes pages or sections such as:

About Us: This section provides general information about the school, its history, mission, andvision.

Admissions: This section provides information on the admission process, enrollment requirements, and important dates and deadlines.

Academics: This section provides information about the school's academic programs, curriculum, and courses offered.

Faculty and Staff: This section provides information about the school's faculty and staff,including their qualifications and contact information.
Student Life: This section provides information about extracurricular activities, clubs, and sportsprograms offered by the school.

Resources: This section provides links to important resources such as school policies, calendars,and forms.

News and Events: This section provides news and updates about school events, activities, andaccomplishments.

When designing a school website, it is important to consider factors such as ease of use, accessibility, and mobile responsiveness. The website should be user-friendly and provide a positive user experiencefor all visitors. It is also important to ensure that the website is up-to-date and regularly maintained to provide accurate and relevant information to its users.

4.1.5 Database

A school management system can greatly benefit from the use of a database. Here are some ways inwhich a database can be used in a school management system:

Student Information Management: A database can be used to store and manage information about students, including personal details, academic records, attendance, disciplinary records,and more.

Teacher Information Management: A database can be used to store and manage information about teachers, including personal details, teaching assignments, schedules, and more.

Result Management: A database can be used to manage and track student grades, includingassignments, tests, quizzes, and other assessments.

Resource Management: A database can be used to manage and track school resources, includingtextbooks, computers, equipment, and other resources.

Financial Management: A database can be used to manage and track school finances, includingstudent tuition, grants, donations, and other financial transactions.

By using a database to manage these different aspects of the school management system, school administrators and teachers can have access to accurate and up-to-date information that can help themmake informed decisions and improve the quality of education provided to students.

Auto result-making system

An auto result-making system can be implemented in a school management system to automate the process of calculating and generating student grades and report cards. Here are the steps involved inimplementing an auto-result-making system:

Define the grading system: The first step is to define the grading system used by the school,including the grading scale, the weightage of different assessments, and the passing criteria.

Set up the assessment modules: The next step is to set up the different assessment modules, suchas assignments, quizzes, tests, and exams, and their corresponding weightage. These modules should be customizable so that teachers can add or modify them as needed.

Input student scores: Once the assessment modules are set up, teachers can input student scoresfor each module into the system. The system should allow for different types of scores, such asnumerical grades or letter grades, and calculate the overall grade for each student.

Generate report cards: The system should then generate report cards automatically based on the calculated grades. The report cards should include the student's name, grade level, courses taken,grades obtained for each assessment module, and overall grade.

Allow for review and adjustments: The system should also allow for review and adjustments byteachers and administrators, who can check the grades and make any necessary changes.

Publish the results: Once the review and adjustments are complete, the system should publish thefinal results, which can be viewed by students, parents, and teachers.

An auto result-making system can greatly simplify and streamline the process of calculating and generating student grades and report cards, saving time and reducing errors. It can also provide valuable insights into student performance and help teachers and administrators identify areas for improvement.
Payment Making System

A payment-making system can be implemented in a school management system to streamline the process of collecting and managing school fees and other payments. Here are the steps involved inimplementing a payment-making system in a school management system:

Define the payment types: The first step is to define the different types of payments that can bemade through the system, such as tuition fees, exam fees, library fees, and other fees.

Set up payment gateway integration: The next step is to set up integration with a payment gateway that allows for online payment processing. This can be done through a third party payment gateway service or by integrating with a bank's payment gateway API.

Enable payment notifications: Once the payment gateway integration is set up, the system shouldbe configured to send notifications to students and parents when a payment is due or when a payment is made.

Provide payment options: The system should provide different payment options to students and parents, such as credit/debit cards, net banking, UPI, e-wallets, etc. The payment options shouldbe secure and reliable.

Maintain payment records: The system should maintain a record of all payments made throughthe system, including the payment type, amount, date, and status. This can be used to generate reports and reconcile accounts.

Enable refund processing: The system should also allow for refund processing in case ofoverpayment or cancellation of a payment.

Provide reports: The system should provide reports on payments collected, outstanding payments, and other payment-related data that can be used by administrators to track andmanage payments.

Implementing a payment-making system in a school management system can help schools collect feesand other payments in a more efficient and streamlined manner, reducing manual errors and providingbetter tracking and reporting capabilities. It can also provide convenience to students and parents by allowing them to make payments online from anywhere at any time.

Provide slider:- For school website sliders provide. According to the school image and special moment images etc. .

Provide notice:- For school website and student portal two different notice should have provide. One for everyone who will visit the website and one for specific class members.

Provide Hall Of Fame:- For school website Hall Of Fame information provide. So collect and provide hall of fame image and information.

fee
f_is
addme
card_f
lib_f
s_un
soft_f
jan
janf
jancon
feb
febf
febcon
mar
marf
marcon
ap
apf
apcon
may
mayf
maycon
jun
junf
juncon
july
julyf
julycon
aug
augf
augcon
sep
sepf
sepcon
oct
octf
octcon
nov
novf
novcon
dec
decf
deccon
st_id

sli
sli_id
image
name
date

hall
h_id
image
name
text
year

result
r_id
exam
bangla
math
science
so_science
arts
st_id

ST_info
st_id
st_name
st_roll
st_class
address
gender
b_group
f_name
f_number
m_name
m_number
st_roll
st_roll

teacher
T_id
Name
Address
number
email
pass
cpass
gen
img

cnotice
c_id
image
date

notice
n_id
notice
n_t

expense
e_id
name
number
es
de
ae

admin
admin_Id
Name
Address
number
email
pass
cpass
gen
img

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4.2 *HOW WE DO IT*

We are going to divide the work into 3 parts. They will be

1. Website Front End and Back End.
2. Admin and Teacher panel Front End and Back End.
3. Student panel Front End and Back End.

4.2.1 **Website Front End and Back End.**

At first, we will make a header add all necessary links. In the body first row, we going to add the school email address then social media link after that phone number admin panel link, and last but not inthe list college code which is given by the government.

Second roe school logo name and menu bar. In the menu bar, we will add all necessary links, home, about, admission, teacher panel, student panel, etc.

We will add a notice bar which is managed by the admin panel. It can be also managed by teacher panel. Like adding a notice, deleting a notice, editing a notice, etc.

The slide bar, it's like notice bar also managed by the admin panel. Like adding, deleting, editing, etc.

Then add some motivational words and hall of fame, add an about page, and a google map bywhich people can get school locations.

For all that we need a header which will be same for all page so we will save as a h.php . I use extension php not html because I want to use it for all pages but it is a html code

```
<!DOCTYPE HTML>
<html lang="en-US">
<head>
    <title>Shahensha-a school & colege</title>
      <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link                                                    rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></
script>
    <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script
>
    <link         rel="stylesheet"         href="https://maxcdn.bootstrapcdn.com/font-
awesome/4.7.0/css/font-awesome.min.css">
```

```
    <script src="https://kit.fontawesome.com/070783a410.js"></script>
<link rel="stylesheet" type="text/css"href="css/style1.css.php">
</head>
<body>
<div class="container-fluid bg-secondary header-top d-none d-md-block">
  <div class="container">
    <div class="row text-light pt-2 pb-2">
      <div class="col-md-3"><i class="fa fa-envelope-o" aria-hidden="true"></i>
shafayet133@gmail.com</div>
        <div class="col-md-2 "><i class="fab fa-facebook"></i>Shahensha-a school &
college
</div>
        <div class="col-md-3"><i class="fas fa-mobile-alt"></i> 01955-112923
<mark>OR</mark> 01670891760 </div>

        <div class="col-md-2"><a href="sec/soft" class="text-white"><i class="fa fa-
user-o" aria-hidden="true"></i>Account</a></div>
      <div class="col-md-2"> <i class="fas fa-barcode"></i> College - 335962</div>
    </div>
  </div>
</div>
```

Like this I will divide full page which will help page to load first for example below

```
<?php include('sec/soft/page/db/connection.php') ?>
<?php $p="home";include"page/h.php";?>
<body>
<?php include"page/nav.php";?>
<?php include"not.php";?>
<?php include"page/sli.php";?>


    <div class="container text-white text-center ">
          <div class="row pa">
                  <div class="col-md-4">
                  <div class="card p1">
    <h3>Some Word From </h3>
                        <h4>Our Principal</h4>
                        <img src="st/charman.jpg" alt="" />
                        <p>Paragraphs are the building blocks of papers. Many
students define paragraphs in terms of length: a paragraph is a group of at least five
sentences, a paragraph is half a page long, etc. In reality, though, the unity and
coherence of ideas among sentences is what constitutes a paragraph. A paragraph is
defined as "a group of sentences or a single sentence that forms a unit" (Lunsford
and Connors 116) </p>
                        <button type="button" class="btn btn-info"><a href="sir.php"
class="text-white">Read MORE</a></button>
                  </div>
</div>

                  <div class="col-md-4 ">
```

```
<div class="card p2">
<h3>Some Word From </h3>
<h4>Our EX-Student</h4>
<img src="st/had.jpg" alt="" />
<p>Paragraphs are the building blocks of papers. Many
students define paragraphs in terms of length: a paragraph is a group of at least five
sentences, a paragraph is half a page long, etc. In reality, though, the unity and
coherence of ideas among sentences is what constitutes a paragraph. A paragraph is
defined as "a group of sentences or a single sentence that forms a unit" (Lunsford
and Connors 116).</p>
<button type="button" class="btn btn-info"><a href="stu.php"
class="text-white">Read MORE</a></button>
</div></div>


<div class="col-md-4">
<div class="card p3">
<h3>About Our School </h3>

<img src="1.JPG" alt="" />
<p>Paragraphs are the building blocks of papers. Many
students define paragraphs in terms of length: a paragraph is a group of at least five
sentences, a paragraph is half a page long, etc. In reality, though, the unity and
coherence of ideas among sentences is what constitutes a paragraph. A paragraph is
defined as "a group of sentences or a single sentence that forms a unit" (Lunsford
and Connors 116). Length and appearance do not determine  </p>
<button type="button"  class="btn btn-info"><a href="about.php"
class="text-white">Read MORE</a></button>
</div></div>
</div>
</div>


<?php include"sli.php";?>



<div class="container">


<?php include"page/f.php"; ?>
```

For find school we going to add google map in the web site . for that we have to find
school location and go to share option from google map and copy the code .
For example

```
<iframe
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d2557.664805968
457!2d14.37102297638378!3d50.129993971532784!2m3!1f0!2f0!3f0!3m2!1i1024!2i
768!4f13.1!3m3!1m2!1s0x470beaa5d02097fb%3A0xf29bd7cffb8fb4bc!2sCzech%20
University%20of%20Life%20Sciences%20Prague%20(CZU)!5e0!3m2!1sen!2scz!4v1
```

711378860153!5m2!1sen!2scz" width="100%" height="450" style="border:0;" allowfullscreen="" loading="lazy" referrerpolicy="no-referrer-when-downgrade"></iframe>

4.2.2   Admin and Teacher panel Front End and Back End.

In the admin panel first need to set a login system. If someone wants to log in his or her information must be in the admin table in the database other ways he or she can't log in.
Most important we must put a condition on every page in the admin panel. This makes sure if thatperson does, not login he or she can't see that page it goes back to the login page.

For take data from user we going use from like below

```
<form class="form-horizontal" action="page/login.php" method="post">
                    <div class="form-group">
        <input    type="text"    class="form-control    form-control-user"
name="username"   placeholder="Enter Your name...">
        </div>
        <div class="form-group">
        <input    type="email"    class="form-control    form-control-user"
name="email"        id="exampleInputEmail"        aria-describedby="emailHelp"
placeholder="Enter Email Address...">
        </div>
        <div class="form-group">
        <input    type="password"    class="form-control    form-control-user"
name="password" id="exampleInputPassword" placeholder="Password">
        </div>
        <div class="form-group">
         <div class="custom-control custom-checkbox small">
         <input          type="checkbox"          class="custom-control-input"
id="customCheck">
          <label class="custom-control-label" for="customCheck">Remember
Me</label>
         </div>
        </div>
        <button          type="submit"          class="btn          btn-primary"
name="submit">Login</button>
        <button    class="btn    btn-danger"><a    href="http://localhost/school1"
class="text-white">Not Now</a></button>

        </form>
```
Chaka the data we are going to **isset($_POST['submit'])**

```
if(isset($_POST['submit'])){
    $username=$_POST['username'];
    $email=$_POST['email'];
    $password=$_POST['password'];
```

```php
    $select_query="SELECT * FROM admin WHERE name='$username' &&
email='$email' && pass='$password'";
    $run_query=mysqli_query($connect,$select_query);
    $count=mysqli_num_rows($run_query);
    if($count>0){
            header('location:http://localhost/school1/sec/soft/soft.php');
            $_SESSION['name']=$username;
            $_SESSION['email']=$email;
            $_SESSION['pass']=$password;
    }
    else{
            echo "Username or email or password mistake";
    }
}
```

We have to set up
- Notice management system
- Account calculation (monthly income, monthly expenses, profit and loss)
- Slider management system
- Student management system
- Teacher management system
- Student result management system
- Payment management system
- Log out system
- Etc

4.2.3 Student Panel Front End and Back End.

Here all students can login with there name class and roll number . they can see (according to the class) notice, All kinds of impotent link, (According to the class) the class timetable, (According to the class) class syllabus and there exam result Etc.

For that we need a data connection like below

```php
<?php
$connect=mysqli_connect("localhost","root","","schooln");
if(!$connect){
    echo "Connnection Faill";
}
?>
```

5 Results and Discussion

5.1   Website

According to the planning, we first make the website. At first, we will make a header add all necessary links, and save it as header. php because we are going to link it with every page. So that we don't need to write header for every single page. In the body first row, we going to add the school email address then social media link after that phone number admin panel link, and last but not in the list college code which is given by the government.

Second-row school logo name and menu bar. In the menu bar, we will add all necessary links, home, about, admission, teacher panel, student panel, etc.

We will add a notice bar which is managed by the admin panel. It can be also managed by teacher panel. Like adding a notice, deleting a notice, editing a notice, etc. The slide bar, it's like notice bar also managed by the admin panel. Like adding, deleting, editing ,etc.
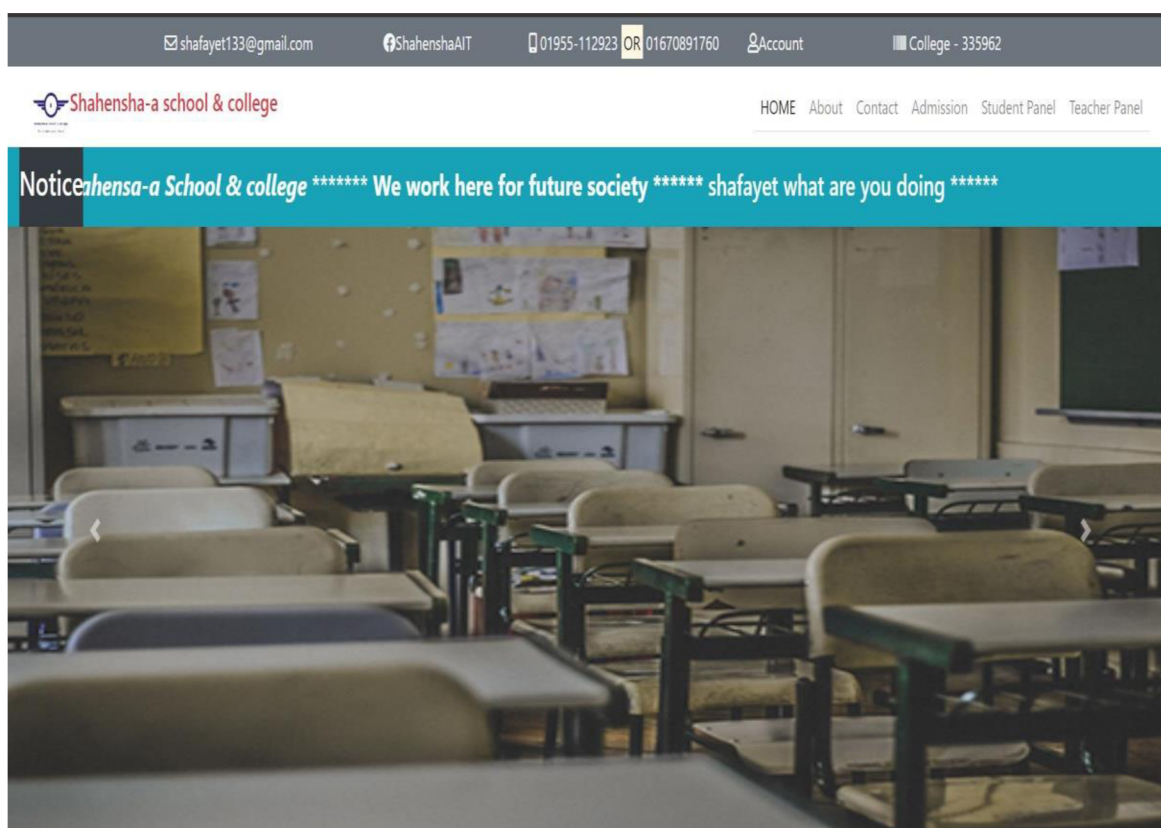
Then add some motivational words from the principal and ex-student. Last but not in the list some words about the school, not full just some lines.

Next row we are going to add a Hall of fame. Where we can add some famous ex-student or students who got good make in board exams. So now for only this project, we are going to add students who got good make in board exams.

Google Maps will be next .whish will help the parents to get the school location properly and they cansee the distance and best way to go to school. For that, we will go to google map and
find our school location and find the share option and copy the link and use it on our website.
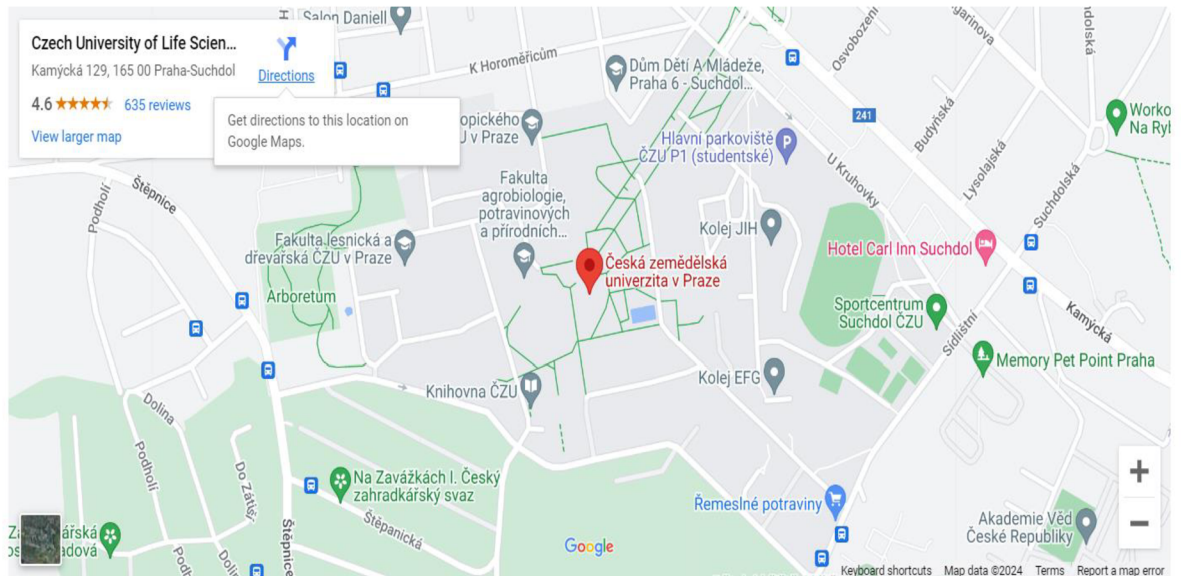
In the footer, we will put the school address, phone number, email address etc. Explain why our school.others stuff. Bottom we will put power by option.

5.2 Admin panel

This panel will have all the functions. the website we make some of its part control by here. Like noticeBut before making all those that we need to make a login system. To create a login system in PHP, youcan follow the below steps:

Create a database: You will need a database to store user information such as usernames and passwords. Use a tool like phpMyAdmin or MySQL Workbench to create a database and a tableto store user information.

Create a login form: Create an HTML form that asks users for their username and password.
Handle the form submission: Create a PHP script that handles the form submission. Use the super global to retrieve the username and password that the user entered.

Validate the user credentials: Use PHP to check whether the username and password are valid byquerying the database. If the user credentials are correct, create a session variable to store the user's login status.

Redirect the user: Redirect the user to a secure page or dashboard once they have successfullylogged in.

Note that this is just a basic example and there are many ways to improve the security and functionality of a login system. For example, you may want to hash passwords using a secure algorithm like bcrypt and use prepared statements to prevent SQL injection attacks.
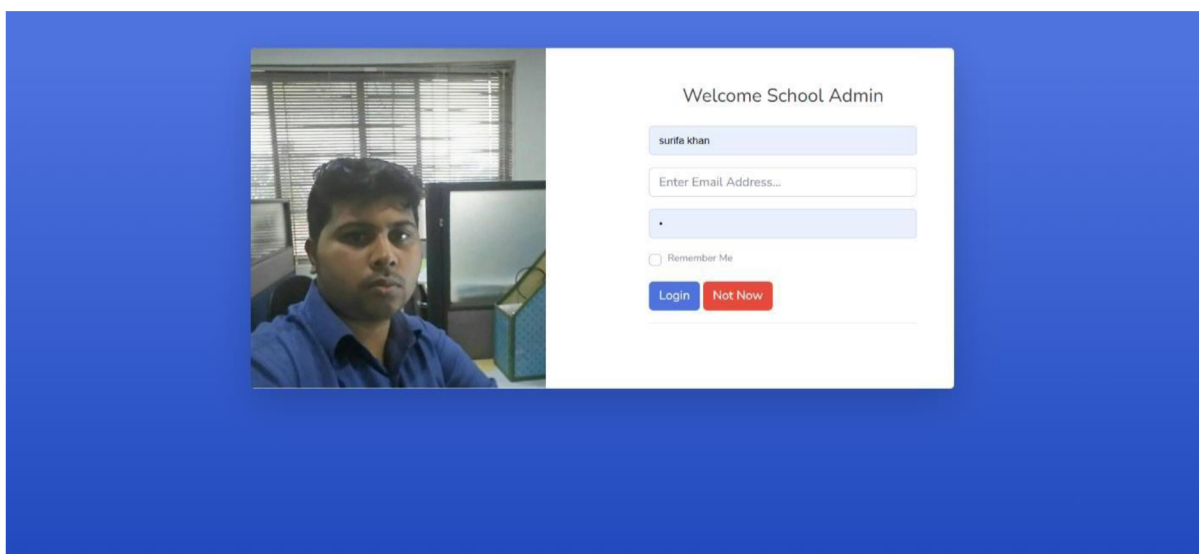
Notice

A notice management system can be designed to efficiently manage and track various types of noticessuch as announcements, memos, reminders, and alerts. Here are the steps to create a basic notice management system:

Define the requirements: Start by identifying the specific needs of the notice management system. This can include features such as user roles, notification settings, search functionality,and integration with other systems.
Choose a platform: Next, select a platform or programming language to build the system.Popular options include Python, Java, and PHP.
Design the database: Create a database schema to store notice data, including fields such as title,date, author, recipient, and content.
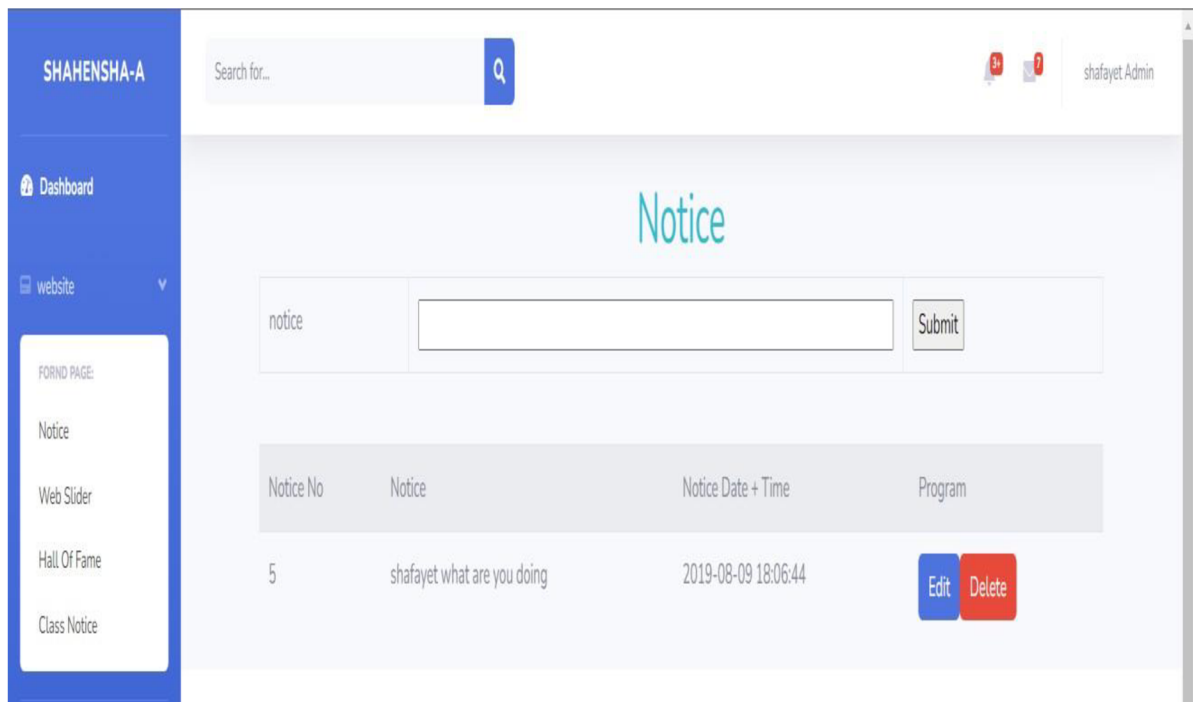
Build the user interface: Develop a user interface to allow users to view, create, edit, and delete notices. This can be done using web development frameworks such as React, Angular, or Vue.js.

Implement notification features: Configure the system to send notifications to users via email,SMS, or push notifications.

Test and deploy: Test the system thoroughly and deploy it to a production environment.

Maintenance: Maintain and update the system regularly to ensure it continues to functionproperly and meets the changing needs of the organization.

Overall, the key to building an effective notice management system is to carefully consider the specificrequirements and design a system that is user-friendly, scalable, and easy to maintain.

Here under the website, we put a notice option. By using this option anyone can handle website notices.From here you can add a notice, edit a notice, delete a notice, you can see when the notice add, etc.

Code

```
<form action="" method="post">
notice
<input type="text" name="notice" required
style="width:100%;"></td><td><input type="submit"
name="submit"></td>
</form>
<table class="table table-striped">

<tr><td>Notice No</td><td>Notice</td><td>Notice Date +
```

```php
Time</td><td>Program</td></tr>
<?php
$show_query="SELECT * FROM notice";

$run_query=mysqli_query($

connect,$show_query);

while($rows=mysqli_fetch_

array($run_query)){

$id=$rows['n_id'];

$name=$rows['notice'];

$sig=$rows['n_t'];

?>

<tr><td><?php echo $id; ?></td><td><?php echo $name; ?></td><td><?php echo
$sig; ?></td>

<td><button        type="button"      class="btn      btn-primary      "><a
href="nedit.php?nedit=<?php      echo      $id       ?>"        class="text-
white">Edit</a></button><button       type="button"      class="btn      btn-
danger"><a    href="page/ndelete.php?ndelete=<?php      echo      $id      ?>"
class="text-white">Delete</a></button></td></tr></tr>

<?php } ?></table></div><!-- End of Main Content --><!-- Footer -->

<?php

if (isset($_POST['submit'])){

$name=$_POST['notice'];

$insert_query="INSERT INTO notice (notice) values ('$name')";

$run_query=mysqli_query($connect,$insert_q

uery);If($run_query){

            echo "<div class='pop1'>"."<div
class='pop2'>"."Data INSERT
Successfully"."<br>"."<div class='delete'>"."<a
href='notice.php'>closs</a>"."</div>"."</div>"."
</div>";
}
```

else{echo "<div class='pop1'>"."<div class='pop2'>"."Data INSERT Fail"."
"."<divclass='delete'>"."closs"."</div>"."</div>"."</div>";}}

Website slider

The next system will be a website slider management system. Where an admin can add a new sliderphoto or content. Delete old slider photos or content. Edit sliders photos or content etc.
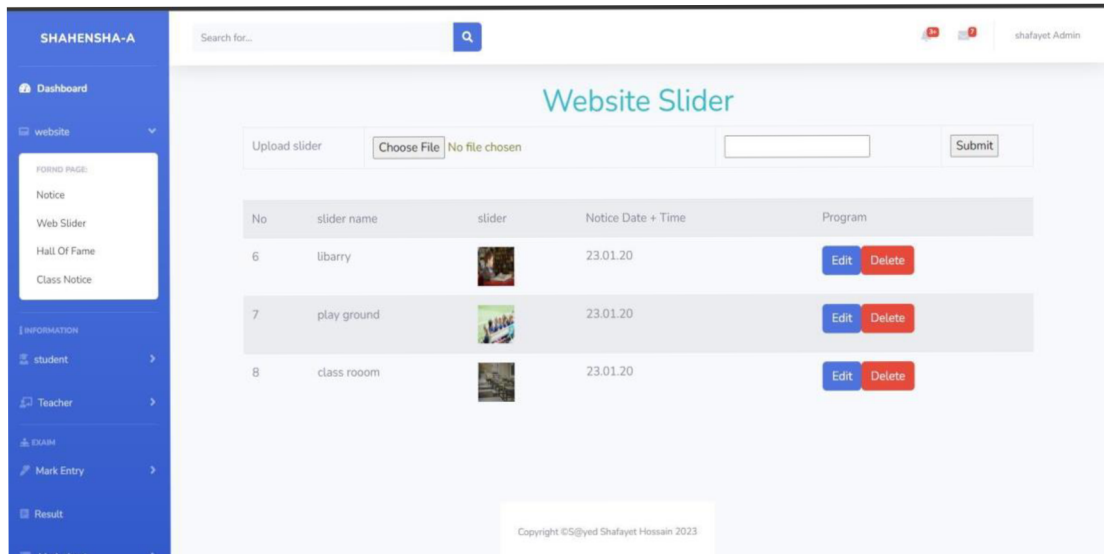
Holl of fame

Holl of fame is an option to show board results of famous ex-students. Where an admin can add a newphoto or content. Delete old photos or content. Edit photos or content etc.
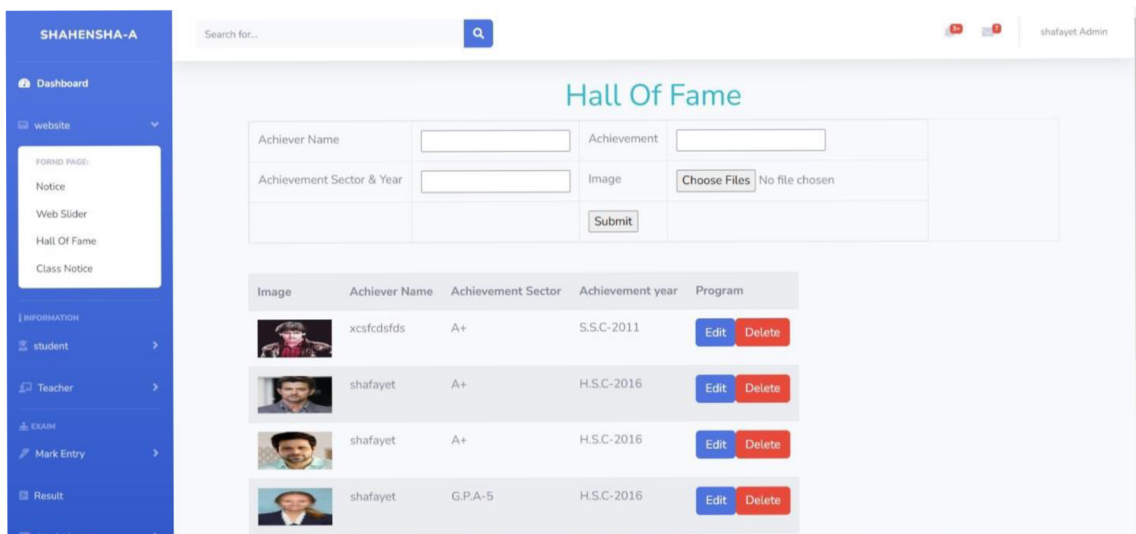
For take photo we have to purifier image extension and size. For that we need some condition like below

```php
<?php if(isset($_POST['submit'])){
$name=$_POST['name'];
$img=$_FILES['img'];
$img_name=$_FILES['img']['name'];
$img_size=$_FILES['img']['size'];
// echo $img_size;
$img_tmp_name=$_FILES['img']['tmp_name'];
$extension=pathinfo($img_name,PATHINFO_EXTENSION);
if($extension=='jpg'||$extension=='PNG'||$extension=='JPG'){
if($img_size<=(1024*1024*1024)){
move_uploaded_file($img_tmp_name,"img/".$name.$img_name);}
else{//echo"invalid File size";
$st['img_name']="invalid File size";}
else{//echo"invalid File Format";$st['img_name']="invalid File Format";}}?>
```

and for other information we just use simple from.

Class notice

In this we will add only for student notice . whish no can see other then only that school student . who is show only in student portal. here admin can add a new photo or content. Delete old photos or content. Edit photos or content etc.
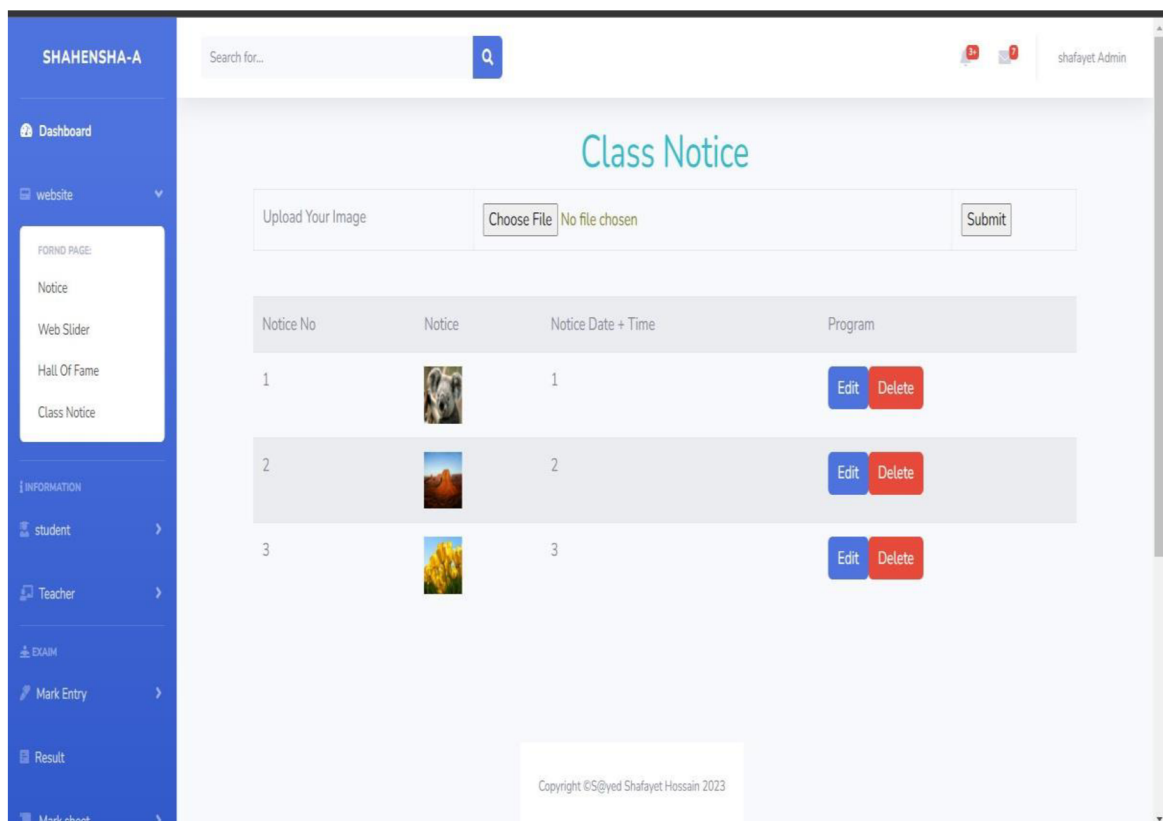
STUDENT

Student is an option where the admin can admit a student. see information, edit student information, delete student information etc. The information coming from admission or admin can by himself .It is really important because student are the main persons of any school and college. This information use many places like payment system ,mark system ,result system and other systems. In student system there are all the information you can about student for example student name, student class, student roll, student address, gender, blood group, father name ,father phone number, mother name, mother number. all this information really important . if something happen to the student in school father name ,father phone number, mother name, mother number school administration can use it . if anyone need B+ blood so school administration know who to asked.

TEACHER

Teacher is an option where the admin can add a new Teacher. see information, edit Teacher information,delete Teacher information, etc.

Mark Entry, Result, and mark sheet

In this option teacher and admin can add student exam mark entries. According to the class.

Here you can see all class results according to class tram and section etc. For every student, a pdf sheetwill generate

Shahensha-a school & collage
15/1 kingsuk tower, Pallabi, Mirpur

Student NAME:-	modon kumar
FATHER NAME:-	surif khan
MOTHER NAME:-	surifa khan
CLASS:-	iii
ROLL:-	4
SECTION:-	N/A
Type of Student:-	Regular
PASSINGE YEAR:-	2019

TOTALL MARK	GPA	GPA POINT
100-80	A+	5
79-70	A	4
60-69	A-	3.5
50-59	B	3
40-49	C	2
33-39	D	1
0-32	F	0

SUBJECT NAME	SUBJECT MARK	G.P.A	G.P.A POINT
BANGLA	100	A+	5
ENGLISH	0	F	0
MATH	50	B	3
SCIENCE	60	A-	3.5
SOCIAL SCIENCE	50	B	3
Arts(Drawing)	50	B	3

TOTALL	51.666666666667	F	0

Date OF Publication of Result:-   Examiner signature

shahensa-aEdu

Fee entry and fee sheet

To insert a new fee entry into the database, you could create a PHP script that does the following:

Accepts form input from the user (i.e., the name and amount of the fee). Validates the input to ensure that the name and amount are not empty and that an amount is a valid number.
Inserts the new fee record into the database using a SQL query, with the current timestamp as `created_at` the value.

For the fee sheet, we use the Fpdf library. it is a PHP library. and we add some barcodes for quick entrydata.
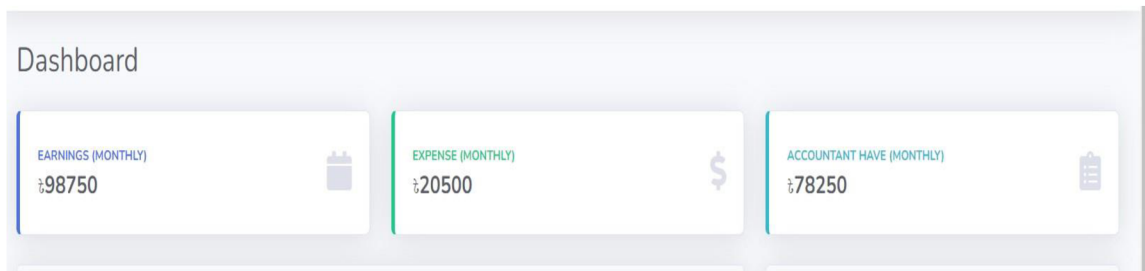

Expense

Here we will take all the expenses. From expenses and get tuition fees will get how much money wehave in our account.

5.3   Student Portal

A student portal is a secure online platform where students can access information and resources related to their education. The portal typically contains features such as course schedules, grades, assignments, announcements, and class materials.

In addition to academic resources, student portals may also provide access to campus services such as student organizations, career centers, and health services. Some student portals also offer

communication tools such as email, messaging, and forums to facilitate communication between students and faculty.

Student portals are often designed to be mobile-friendly, allowing students to access their information from their smartphones and other mobile devices. They may also be integrated with other educational software and platforms such as learning management systems and virtual classrooms.

Overall, a student portal is a valuable tool for students to manage their academic progress and stayconnected with their school community.
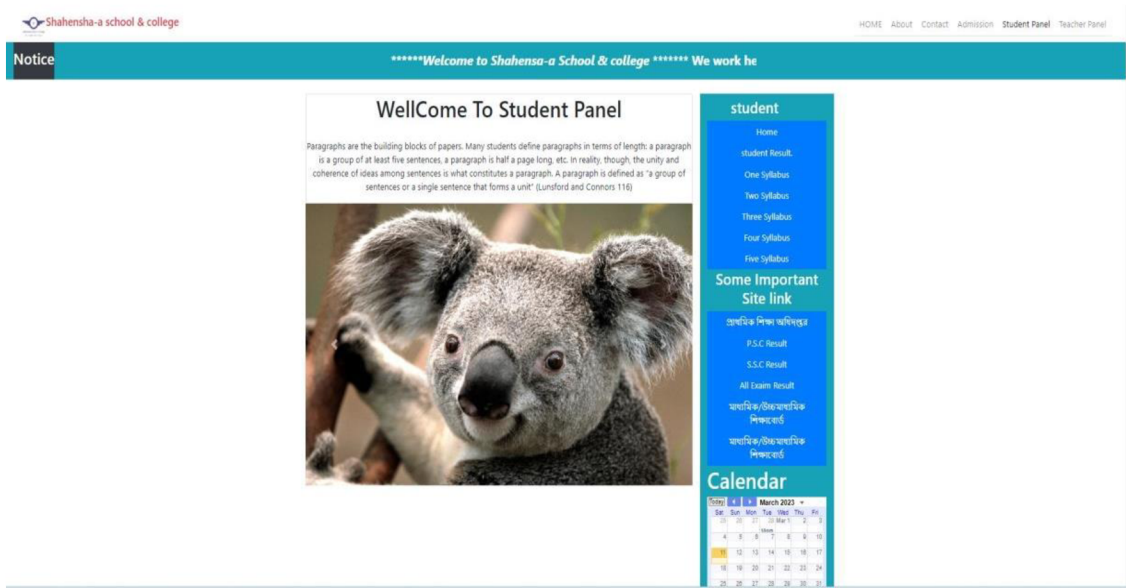
5.4 Teacher panel

It is same as admin panel just lass option . like teacher panel don't have account option .
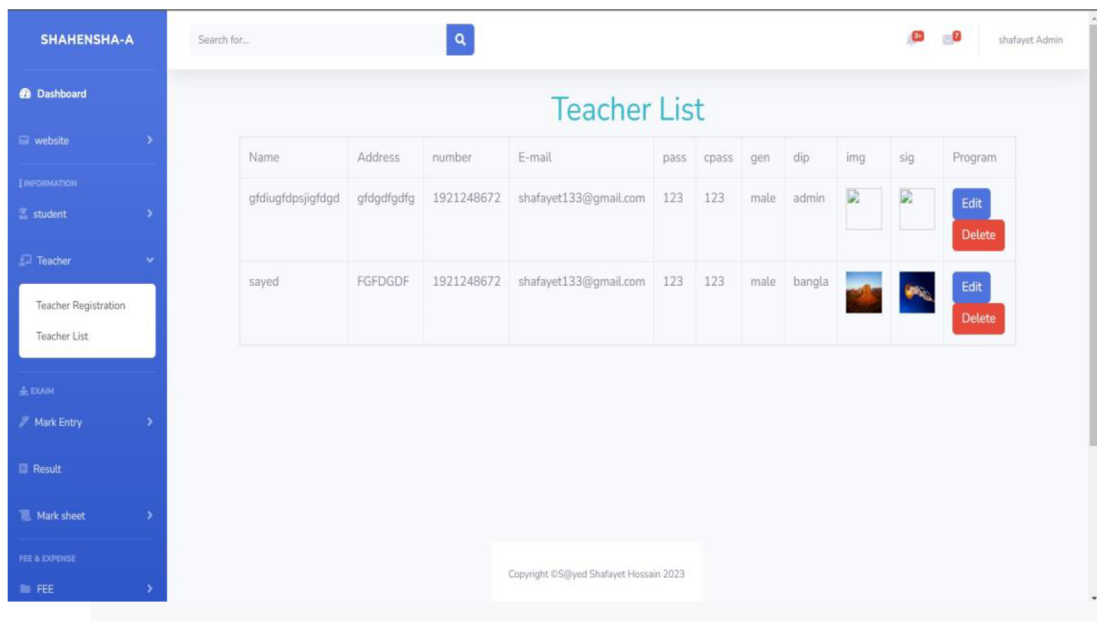
6. Conclusion

In conclusion, a school management system is an essential tool for modern-day educational institutionsto streamline and optimize their administrative and academic processes. By leveraging technology, a school management system can help automate tasks such as attendance tracking, grade management, scheduling, and communication, saving time and reducing errors.

Moreover, a school management system can provide administrators and educators with real-time insights into student performance, enabling them to identify areas for improvement and tailor their teaching to meet individual needs. Additionally, parents and students can also benefit from a schoolmanagement system by gaining access to important information such as grades, attendance, and schedules.

In short, a school management system can help educational institutions to enhance their overall efficiency, transparency, and communication, resulting in better outcomes for students, teachers, andadministrators alike.

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