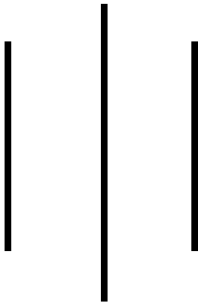
LA GRANDEE INTERNATIONAL COLLEGE

Simalchaur, Pokhara Nepal

A Project Proposal On

"Mero School"



Submitted to:

Bachelor of Computer Application (BCA) Program

In partial fulfilment of the requirements for the degree of BCA under Pokhara University **Submitted by:**

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Date:20/06/2023

DECLARATION FOR

“Mero School”

STUDENT’S DECLARATION

We hereby declare that we are the only authors of this work and that no sources other than the mentioned here have been used in this. We assure you that the work we present here is unique to ourselves and resemblances to another similar project are purely coincidental.

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Abstract

Mero school will be an online web application based on the principle of providing convenience and service to students. It will focus on representing the different types of users interacting with the school management system, such as administrators, teachers, students, and parents. It defines their roles, responsibilities, and the actions they can perform within the system. the structure of classes or sections in the school. It includes information about class names, grade levels, subjects, and the association of students and teachers with specific classes. The following abstractions may be included User Abstraction, Class/Section Abstraction, Attendance Abstraction, Gradebook Abstraction, Timetable Abstraction, Fee Management Abstraction and Communication Abstraction.

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1. INTRODUCTION

Mero School is a web-based school management system that aims to enhance the management of schools and colleges. The Mero School system is a powerful and flexible solutions that can be customize to meet the specific needs of individual schools. The system is web-based, which means that it can be access from anywhere and on any device with an internet connection. This makes it easy for teachers, students, and parents to access information. The education system plays a critical role in shaping the future of individuals and society as a whole. However, managing schools and colleges can be a challenging task, especially with increasing student enrollments and administrative tasks. So, in order to address this issued we are developing this project. The purpose behind selecting this project was to address the challenges faced by schools and colleges in managing student and administrative data. Our research revealed that most schools and colleges still rely on manual systems, which are time consuming, error-prone, and can lead to data loss. This is where Mero School comes in, providing a comprehensive solution to automate routine tasks and improve operational efficiency. The implementation of Mero School is essential in the current educational environment, where schools and colleges are facing increasing pressure to improve the quality of education and administrative efficiency. Going digital is the best method as it allows for greater accuracy, efficiency, and accessibility. By implementing Mero School, educational institutions can streamline their administrative tasks, enhance communication, and focus more on the core aspects of education. To enhance the reporting feature in a school management project and provide more comprehensive and customizable reports, several improvements can be made Implementing a parent portal in a school management project provides parents with convenient access to their child's information and facilitates effective communication with teachers Enhancing the user interface (UI) of a school management project for better usability and aesthetics involves improving the visual design and interaction elements to create a more intuitive and visually appealing experience Performing thorough testing and bug fixing is crucial to ensure the stability and reliability of a school management system. Developing a database schema for a school management system involves designing the structure and relationships of the underlying database table

2. BACKGROUND STUDY

School management systems are software applications designed to streamline and automate various administrative and academic processes in educational institutions. This report aims to explore the key features, benefits, and challenges associated with implementing such systems in schools. school management involved manual recordkeeping and labor-intensive administrative tasks. With the advancements in technology, the development of school management systems has revolutionized the way educational institutions handle their operations. Some key features of School Management Systems are Student Information Management, Administrative Functions, Academic Management, Communication and Collaboration and Financial Management. School management systems have transformed the way educational institutions operate, bringing efficiency, automation and improved communication. This background study highlights the key features, benefits, and challenges associated with implementing such systems. By leveraging the right technology, schools can enhance their administrative processes, streamline operations, and provide a better learning experience for students, parents, and staff.

3. LITERATURE REVIEW

The advent of the internet has brought about significant changes in the field of education. One such change is the use of web-based school management systems. These systems are designed to streamline and automate various school processes such as student registration, attendance tracking, grade reporting, and communication between teachers and parents.

Numerous studies have investigated the benefits and challenges of implementing school management systems. In a study by Daramola et al. (2019), it was found that the use of web-based school management systems can improve the efficiency of school operations, enhance communication between stakeholders, and provide better access to information. Another study by Jahan et al. (2018) found that school management systems can also improve student performance and reduce workload for teachers.

However, the implementation of school management systems also presents some challenges. These challenges include the need for technical expertise, the cost of implementation and maintenance, and resistance to change among stakeholders (Daramola et al., 2019). Additionally, some studies have pointed out the potential for data security and privacy issues in the use of web-based systems (Jahan et al., 2018).

4. PROBLEM STATEMENT

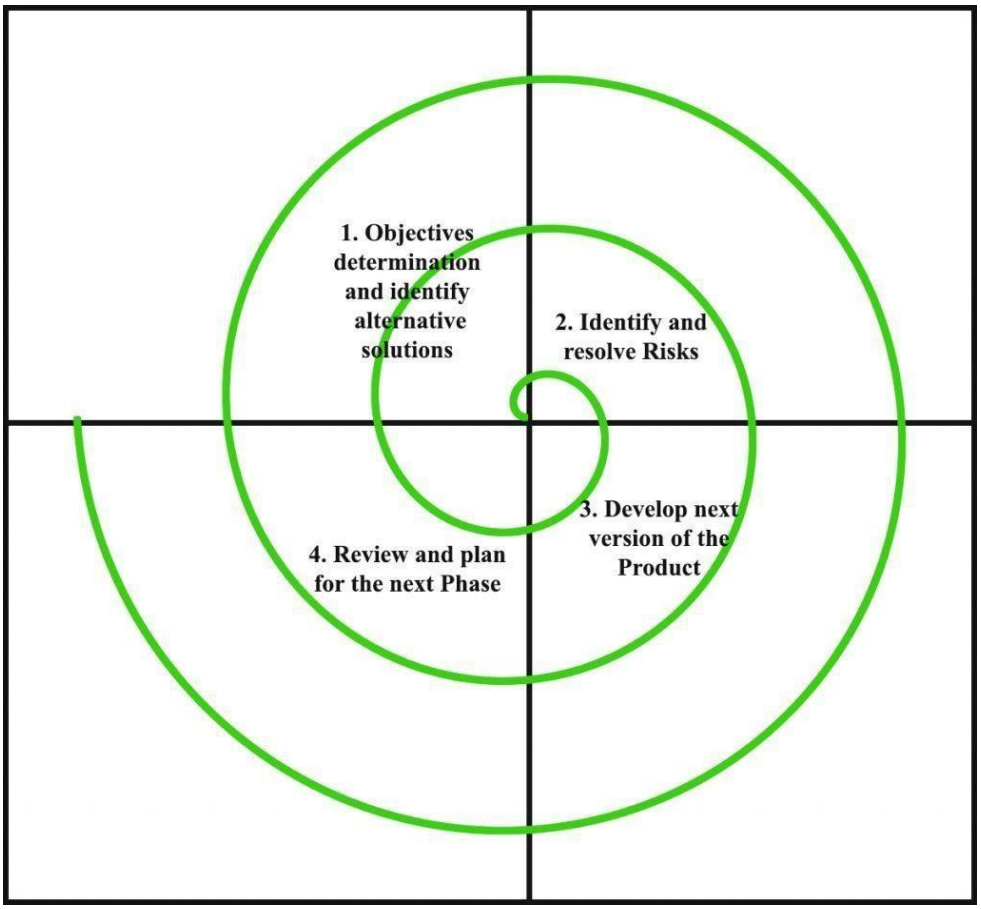
In today's digital age, schools face a variety of challenges in managing their administrative and academic processes. The traditional manual systems used in many schools are outdated and often fail to meet the needs of students, teachers, and administrative staff. These systems are characterized by data redundancies, paperwork, and unorganized tasks, resulting in a lack of efficiency and productivity. To address these issues, we are developing Mero School, a web-based school management system that aims to streamline administrative and academic processes, making them more efficient and effective. We identified common problems faced by the users interacting with existing systems, including inflexibility, storage issues, and outdated systems. These problems can result in inefficient administrative and academic processes, leading to a negative impact on the quality of education and overall student experience. Mero School aims to solve these problems by providing a flexible, web-based system that can be accessed from anywhere with an internet connection. The system will eliminate data redundancies, reduce paperwork, and provide an organized and centralized approach to school management. The limited availability of resources, such as hardware and software licenses, can significantly impact the development process of a school management system. The Complex integration requirements between different modules in a school management system can indeed present challenges that require careful planning and coordination. Here's an explanation of the challenges and strategies Inadequate documentation of requirements and specifications can indeed lead to ambiguity and misinterpretation during the development process of a school management system and Communication gaps between team members and stakeholders can have significant impacts on the development process of a school management system, leading to delays and misunderstandings.

5. OBJECTIVES

- To develop a Notice or Announcement Feature that enables school administrators to post important updates, announcements, and events on the website for students and parents to access easily.
- To implement a Talk with Teacher Feature that allows students to communicate with their teachers online to ask questions, seek clarifications, and discuss academic concerns in real-time.
- To create a complete dynamic web-based school management system.

6. METHODOLOGY

The Spiral model is used for the development of the Mero School web-based school management system. We have choosen spiral model for the development of Mero School due to its iterative and flexible nature, which allows for constant feedback and adaptation to changing requirements. This model also emphasizes risk management, which is important for a school management system that handles sensitive information and requires reliable performance. The Spiral Model is a risk-driven approach to software development for identifying and mitigating risks throughout the development process. It can be useful for the development of Mero School website by helping to ensure that the website is delivered on time and within budget, and meets the needs of its users. The Spiral Model involves planning, risk analysis, prototype development, evaluation, development, deployment, and maintenance.



7. DATA FLOW DIAGRAM

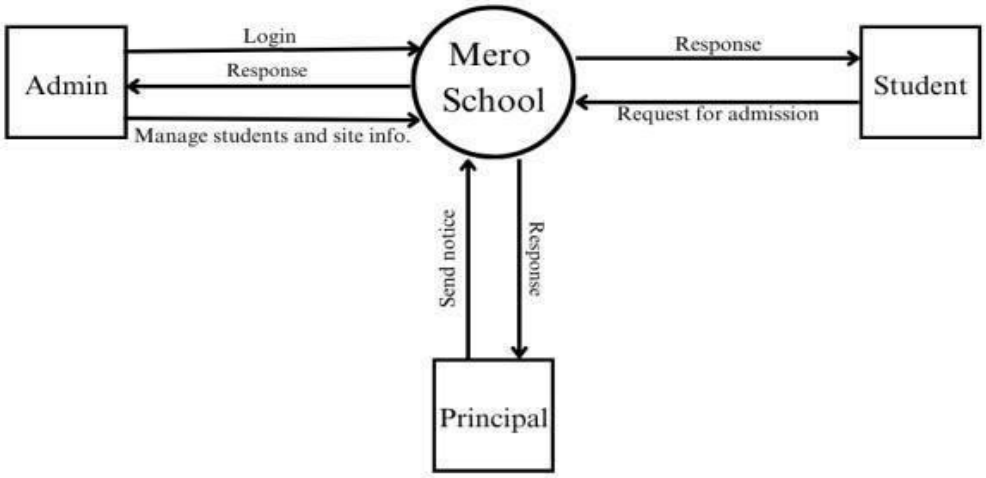


Fig 1: Context Level DFD for Mero School

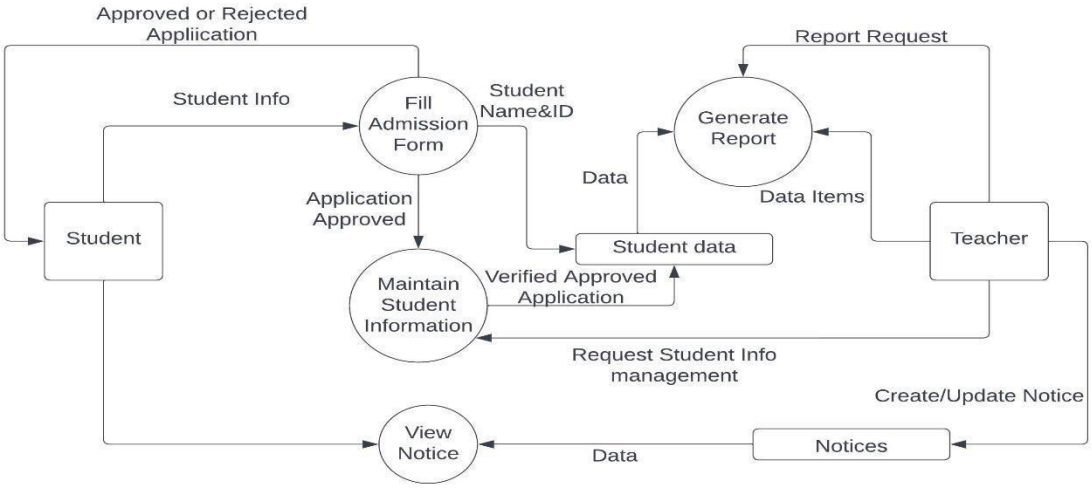


Fig 2: level 1 dfd of mero school

8. PROJECT GANTT CHART/ TIMELINE CHART

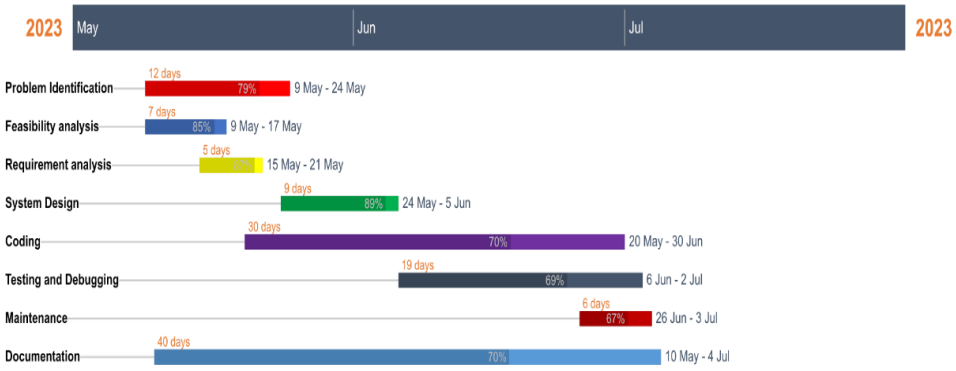


Fig 2: Gantt Chart for Mero School

9. DATABASE SCHEMA

Fig 3: database schema for mero school

10. **TESTING**

Test Case ID	Test Case	Test Steps	Test Data	Results
TC001	website Access	1. Open the web browser	N/A	The website interface loads successfully.
TC002	Admin login	1.Click on the “login” button. 2.Enter admin credentials.	Admin username and password	The admin dashboard is displayed
TC003	User Management	1.Navigate to the admin dashboard. 2.Click on “manage Users”	N/A	The user management page is displayed
TC004	File Management	1.Navigate to the admin dashboard. 2.Click on “manage Files”	N/A	The file management page is displayed

TC005	Dynamic page creation	1.Navigate to the admin dashboard. 2.Click on “create New Page” 3.Fill in the required information 4.Save the changes	Page content and details	The new page is created and visible on the website
TC006	Student enrollment	1.Open the enrollment form 2.Fill in the required fields 3.submi the form	Student information	The enrollment is successful and the student receives a confirmation
TC007	Notice visibility	1.Login as a student 2.Navigate to the homepage 3.check the latest notices section	N/A	The latest notices are displayed on the homepage
TC008	News and Events	1.login as a student 2.Navigate to the homepage 3.Check the news and events section	N/A	The latest news and events are displayed on the homepage

11. DELIVERABLES:

- A comprehensive school management website will provide a feature that allows the school administrators to post notices and announcements to students and teachers. This feature will provide an efficient way to communicate important information such as upcoming events, changes in schedules, or other relevant news.
- A feature that enables students to communicate with their teachers when they face problems or have questions related to their studies. This feature will provide an easy way for students to clarify their doubts and get guidance from their teachers..
- Mero School PHP web-based school management system will be designed as a complete dynamic web-based system. In contrast, a dynamic site allows changes to be made easily through a dashboard without coding.

12. CONCLUSION

Our project focuses on developing an automated school management system that streamlines various activities that take place in schools. The main purpose of "Mero School" is to address administrative problems by making our site completely dynamic. The scope of school management systems is extensive and includes ensuring the efficiency of the institution, securing benefits for the school through practical measures, clarifying the function of the school, coordinating the educational program, and enabling sound educational planning. It also provides for good direction, efficient and systematic execution, close collaboration, and a sense of shared responsibility. The system plays multiple functions, including bringing efficiency, guiding pupils to receive the right direction from the right teachers, promoting coordination within the studentteacherparent society, providing welldefined policies and programs, and fostering a favorable teaching-learning environment that supports the growth and development of human beings. It makes use of appropriate materials and ensures the effective development of human qualities through the execution of programs, arrangement of activities, and the attainment of objectives.

13. REFERENCES

- Daramola, O., Omole, C., & Oladimeji, T. (2019). A web-based school management system: A case study of a Nigerian secondary school. International Journal of Emerging Technologies in Learning, 14(19), 64-76. https://doi.org/10.3991/ijet.v14i19.10449
- Jahan, I., Islam, M. R., & Uddin, M. J. (2018). Web-based school management system: An exploratory study on benefits and challenges. International Journal of Advanced Computer Science and Applications, 9(7), 380-386. https://doi.org/10.14569/IJACSA.2018.090751

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