

CSE INFO HUB

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Abstract - Whole world and administrators of educational institutions in our country are concerned about regularity of student attendance, student's overall academic performance. Conventional methods used until now, were more time consuming and not much fruitful as parents could not keep tab on their child's progress.

In this paper, basic problem of student management in schools/colleges is defined and the main objective is to provide computer vision to it. As a prerequisite, various computerized systems being developed by using different techniques have been reviewed. This paper focuses on the advancement and modernization of the primitive methods which are being used till now in schools and colleges.

The main objective is to build a student database system that will store records of students. It is purposed to reduce time spent on administrative tasks. The system is intended to accept process, generate students reports and grades and transcripts accurately. The system is also intended to provide better services to users, provide meaningful, consistent, and timely data and information and finally promotes efficiency by converting paper processes to electronic form. The system is developed using basic technologies such as Java, MySQL with help of Wamp Server. The system is free of errors and very efficient and less time consuming due to the care taken to develop it.

I. INTRODUCTION

Aim - To develop an application for storing the detailed record of the department/institution which can be used for future reference.

Objectives –

- To develop an application for storing the detailed record of the department/institution.
- To store the record of an institution.
- To maintain and use the data for future reference.

Motivation - As everywhere everyone wants things to be done in an easier and faster way so I worked on a developed strategy which aims the development of administrative and management structures in the institution. Most of the Institutions are already equipped with necessary hardware and network structures under the supervision of the ministry of Education.

Limitations –

- It is not cloud based Database Management System therefore it limits other users from interacting with it.
- The user has to ensure separate information backup reason as this system does not support it.

II. LITERATURE SURVEY

CCP (office of the registrar):

According to student records manual prepared by CCP (office of the registrar) the creation and maintenance of records relating to the students of an institution are essential to manage the relationship between the institution and the student. Controlling the student's academic progress and measuring their achievement.

University of South Florida (office of the registrar):

According to student records manual prepared by University of South Florida (office of the registrar) the creation and maintenance of records relating to the students of an institution are essential to manage the relationship between the institution and the student. It allows the user to quickly record the data to the department, eliminate errors caused by sloppy handwriting.

Soita Reuben, an IT student at Livingstone International University:

A paper on Student Information Management system which was carried out by Soita Reuben, an IT student at Livingstone International University, it is developed to be used by Tertiary Institute to maintain records of students easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information can be very time consuming.

Full Day School Management at SMA As Safi'iyah Medan:

Author(s): Ojak Manurung, Candra Wijaya, Achmad Zulfikar Siregar

This study aims to determine Full Day School Management in SMA As Syafi'iyah Medan, Jl. Karya Wisata Ii No.1, Medan Johor, Medan, North Sumatra Province. This research is a qualitative population study of the Full Day School teacher and management and students of SMA As Syafi'iyah Medan.

Designing and Implementing e-School Systems: An Information Systems Approach to School Management of a Community College in Northern Mindanao, Philippines:

Colleges and Universities have been established to provide educational services to the people. Like any other organization, the school has processes and procedures similar to business or industry that involve admissions, processing of data, and generation of reports. Those processes are made possible through a centralized system in storing, processing, and retrieval of data and information, the majority of the schools in the country are already adopting computer-based systems to address their needs especially on their student and school-related transactions. The absence of a computer system and the complexity of the transactions of the college which makes the personnel be loaded with paper works in storing and keeping student records and information is the motivating factor why the School Management Information System has been designed and developed for a community college in the northern part of Mindanao.

III. PROPOSED WORK

Proposed Concept –

CSE Info Hub is a system developed for managing student's record in an institutional organization. It is done through the system developed which traditionally, was prepared using papers and manual ledgers. It preserves student's and administrator's resources. This system provides a simple interface for the maintenance of student information. It involves procedures like registering the student's details, assignment of the department according to the course chosen, and maintaining records. The data is stored safely in the MySQL database that makes it simple to acquire and data modification can be done whenever required. It is the software created for everyday student record management in the institutions.

Traditional system which was mainly paper-based, required large amount of space to store information.

It limits the exchange of information, updating and causes loss of documentation. A collaborative work in this system becomes rigid and degrades performance. This project on storing the detailed record of the department/institution is one complete information management solution for students and staff of any educational institution.

In today's world, it is a need to organize huge amount of data than ever before. In the absence of a great infrastructure for faculties, students and departments, management to exchange data, crucial information about students and organizations can be misplaced, which can cause loads of problems that can affect the organization. For an academic institution, the data handling should be an easy task for which online approach is a must.

System Architecture/Design –

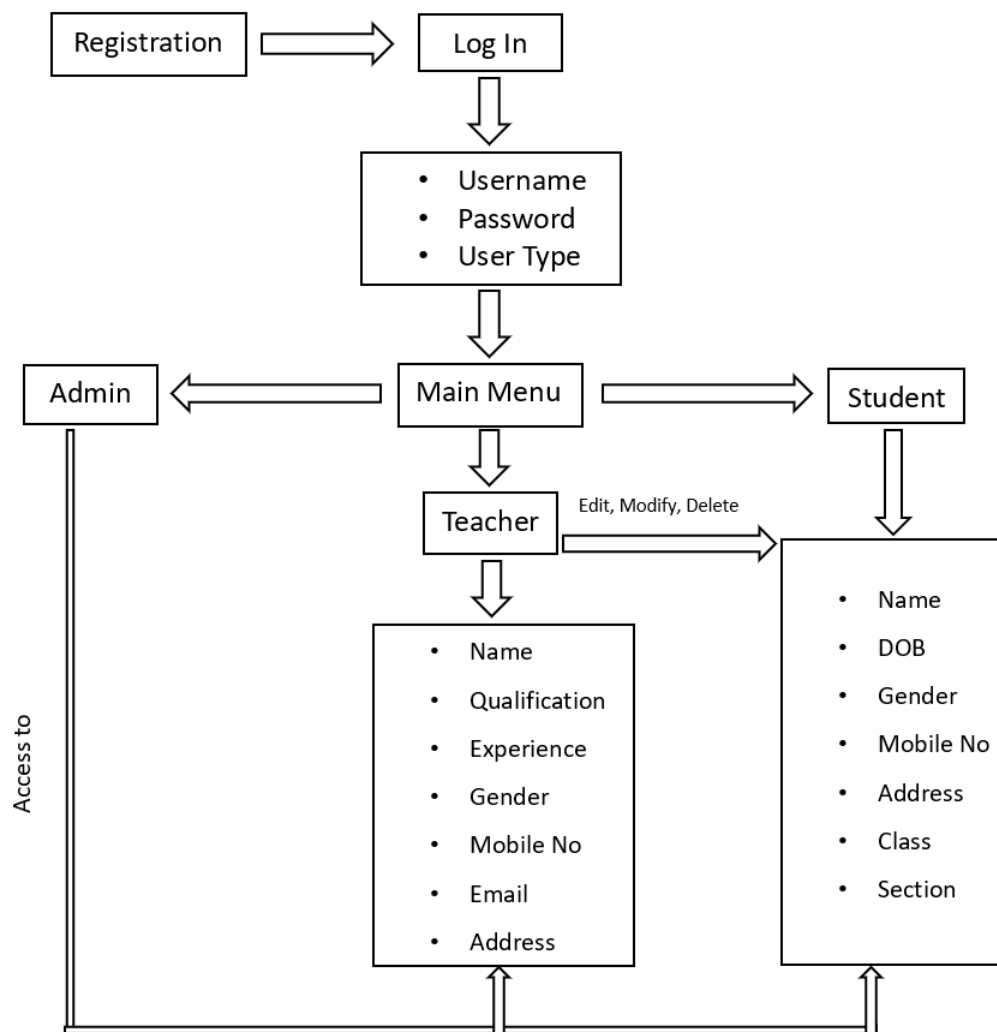


Fig. System Architecture

Working of Proposed System –

- As per the proposed architecture, first we have to Register on the System. After registration, the user will Log in with the User name and password.
- After registration, Main Menu screen will be displayed according to the type of the user i.e. Admin, Teacher, Student
- **Admin Module** – Admin will have all the access of maintaining the details of an Institution. Like the admin can create, delete, update & read the information of Teachers as well as Student.
- **Teacher Module** – The Teacher will have access to the student details according to the class and their section and can edit, modify, and delete the data as required.
- **Student Module** – They can only modify their personal details and can see the records managed by respective teachers.

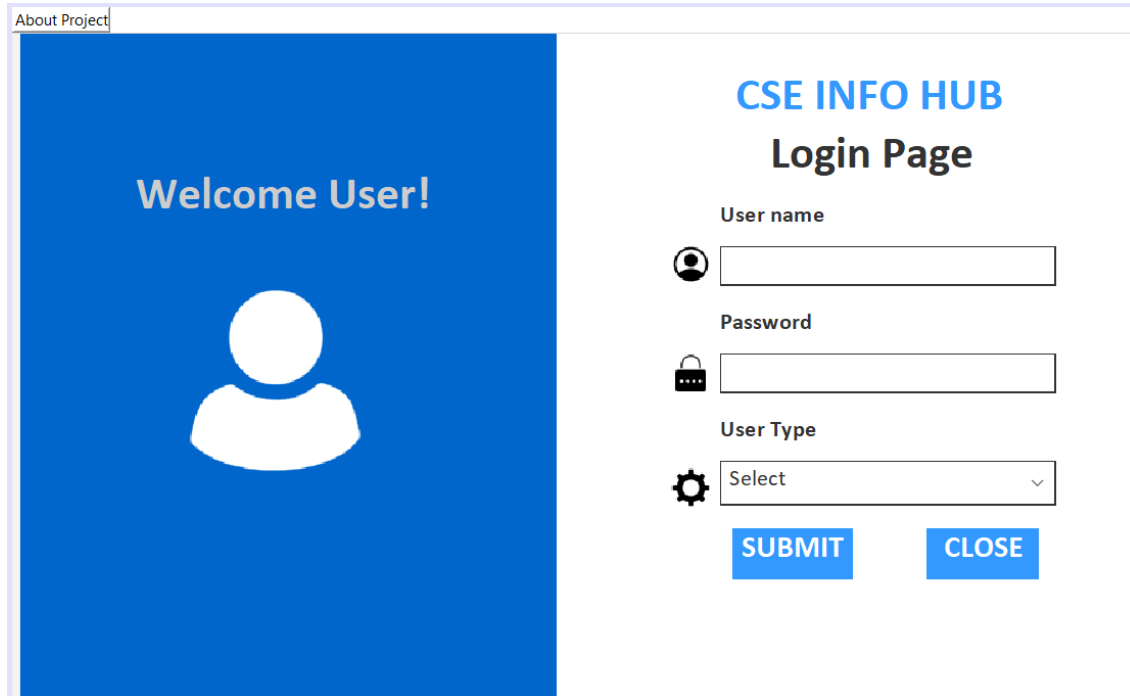
Database Model –

User Data

User Id	Name	Phone Number	Address	Username	Password	User Type
1	XYD	123456789	XYZ, Amt	BN12	1234	Admin
2	ABC	987654321	ABC, Amt	BN21	1234	Student

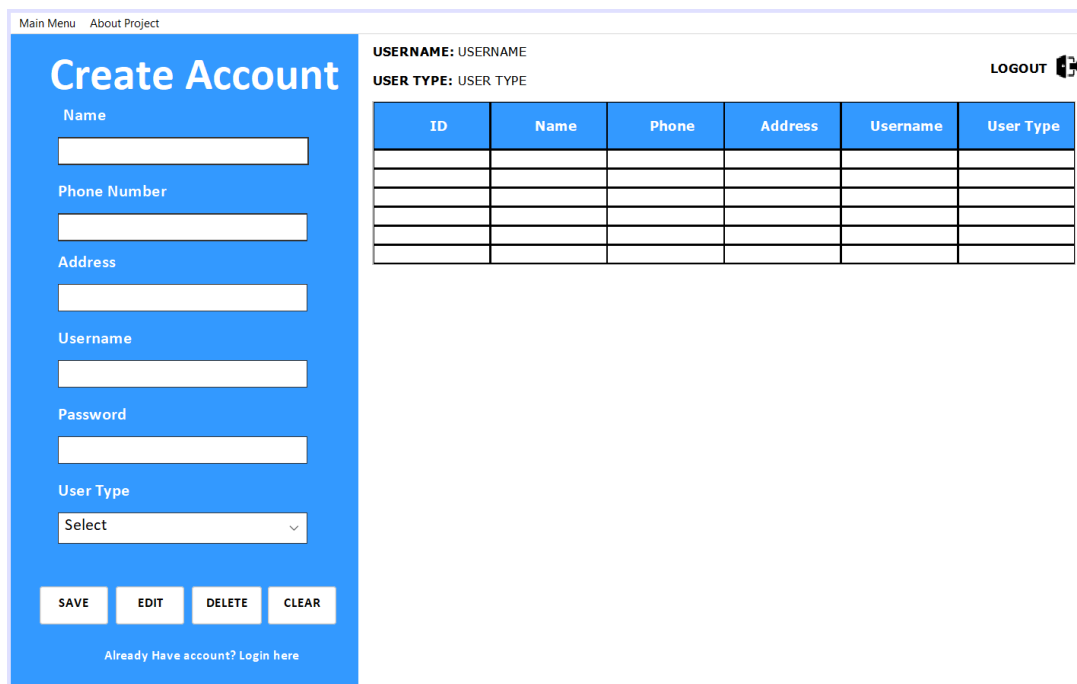
Table. Database Model of User

Registration and Login Screen –



The screenshot shows a web application interface for the 'CSE INFO HUB'. On the left, a blue sidebar contains the text 'Welcome User!' and a white user icon. The main content area is titled 'CSE INFO HUB Login Page'. It features three input fields: 'User name' with a person icon, 'Password' with a lock icon, and 'User Type' with a gear icon and a dropdown menu showing 'Select'. Below these fields are two blue buttons: 'SUBMIT' and 'CLOSE'. At the top left of the main area, there is a link 'About Project'.

Fig. Login Screen



The screenshot shows a web application interface for the 'Create Account' screen. On the left, a blue sidebar contains the title 'Create Account' and several input fields: 'Name', 'Phone Number', 'Address', 'Username', 'Password', and 'User Type' (a dropdown menu showing 'Select'). Below these fields are four buttons: 'SAVE', 'EDIT', 'DELETE', and 'CLEAR'. At the bottom of the sidebar, there is a link 'Already Have account? Login here'. The main content area has a header with 'Main Menu' and 'About Project' links. Below the header, there is a section for 'USERNAME: USERNAME' and 'USER TYPE: USER TYPE'. To the right of this section is a 'LOGOUT' button with a user icon. Below the header section is a table with the following columns: ID, Name, Phone, Address, Username, and User Type. The table has 6 rows, all of which are empty.

ID	Name	Phone	Address	Username	User Type

Fig. Registration Screen

Flowchart –

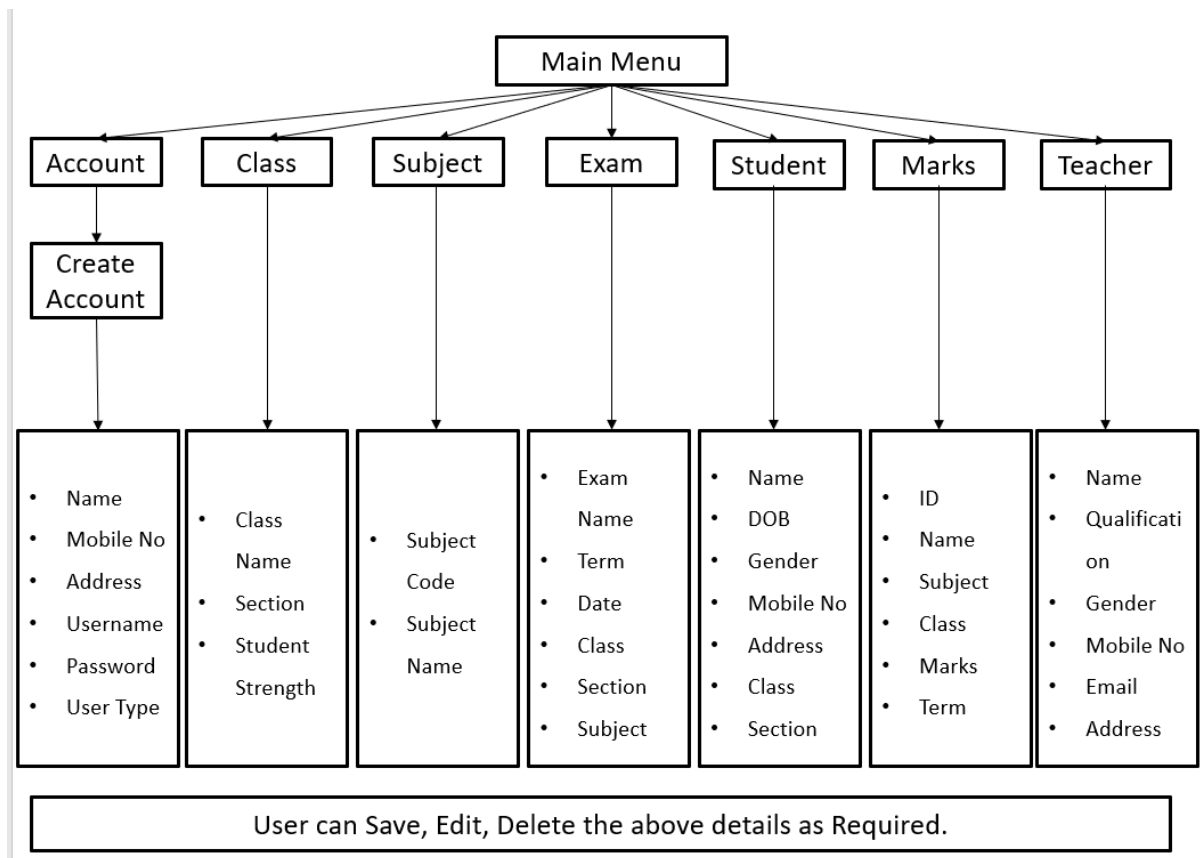


Fig. Flowchart

IV. ADVANTAGES

Improved data sharing:

An advantage of the database management approach is, the DBMS helps to create an environment in which end users have better access to more and better- managed data. Such access makes it possible for end users to respond quickly to changes in their environment.

Improved data security:

The more users access the data, the greater the risks of data security breaches. Corporations invest considerable amounts of time, effort, and money to ensure that corporate data are used properly. DBMS provides a framework for better enforcement of data privacy and security policies.

Better data integration:

Wider access to well-managed data promotes an integrated view of the organization's operations and a clearer view of the big picture. It becomes much easier to see how actions in one segment of the company affect other segments.

V. DISADVANTAGES

- 1.DBMS changes need to be properly used and manage the new features.
- 2.Data should be upload for every year for new batch.

VI. CONCLUSION

Large amount of student's data is generated either manually or electronically on daily basis. When population of student in a school is less than a hundred, the manual system can work perfectly but it is not the best method of managing records of students. The manual and disintegrated electronic systems have numerous disadvantages because these methods of managing data about students are prone to data inconsistency, data redundancy, difficult to update and maintain data, bad security, difficult to impose constraint on various data file and difficult to backup.

This is an integrated system which provides prudent solutions to address problems associated with manual system. In order to assess the performance of the school and student overtime, there is the need to use past records of students without any missing data. The system which maintains longitudinal data of students would provide an accurate and reliable data about current and past students. The system is free of errors and very efficient and less time consuming due to the care taken to develop it.

VII. FUTURE SCOPE

This paper is basically designed for the Institutions. This learning institution provides a lot of services to students which includes; Admits new students, keep student records, also the teachers detail for every department. The system is able to add, validate, sort, classify, calculate, summarize, store and retrieve data. The system stores exam details, course details, department details and all the details.

The CSE Info Hub can be enhanced to include some other functionality like:

- Talent management of students based on their performance evaluation can be added.
- Social networking can also be added wherein students can interact with each other.
- Online class functionality can be added.
- Can evolve as an online institution.
- Functionality of chat and messages can be added.
- Online exam functionality can be added.
- Online resume builder functionality can also be added.

REFERENCES

- [1] Ritvars Bregzis, Calvin Gotlieb, Carole Moore. The Beginning of Automation in the University of Toronto Library, 1963-1972, in IEEE Annals of the History of Computing, 2002.
- [2] Prof. Godswill Obioma, Prof. Ismail Junaidu, Dr. Grace Ajagun. The Automation of Educational Assessment in Nigeria: Challenges and Implications for Pre-service Teacher Education, 39th Annual Conference of the International Association for Educational Assessment.
- [3] Jou M, Shiau JK, Zhang HW. Application of Web Technologies in Automation Technology Education. International Journal of Computers and Applications. 2009; 31:4.
- [4] Xiang Fu, Boris Peltsverger, Kai Qian, Lixin Tao, Jigang Liu. APOGEE – Automated Project Grading and Instant Feedback System for Web Based Computing, Computer Science and Information Technology, 2nd IEEE International Conference, 2009.
- [5] Gerald Weber. Defining the Paperless Workplace with the Paper Metaphor-Not a Contradiction in Terms, Conference: Proceedings of the Fourth Australasian Workshop on Health Informatics and Knowledge Management, 120.
- [6] Keri, P, Carol, S (2009) Strategic management of information systems. 4th ed. Asia: John Wiley & Sons.
- [7] B. G. 1997. The Family Educational Rights and Privacy Act of 1974. In Student Records Management, edited by M Theresa Ruzicka and Beth Lee WeckMulle. London: Greenwood Press, 43-76.
- [8] Mennel, P.A (2006) “management information systems” information management vs. decision making. Loudon.
- [9] Angell, I. O. & Smithson, S. 1991. Information Systems management: Opportunities and Risks. London: Macmillan Education Ltd.
- [10] Adman, P. & Warren, L. 1996. Information systems management: Perspectives for Higher Education. Lancs: Mir Press.