**Academia International College**

Tribhuvan University

Institute of Science and Technology



**Final Report**

**On**

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# Introduction

A **database** is an organized collection of data. The data is typically organized to model relevant aspects of reality (for example, the availability of rooms in hotels), in a way that supports processes requiring this information (for example, finding a hotel with vacancies)

Database management systems (DBMSs) are specially designed applications that interact with the user, other applications, and the database itself to capture and analyze data. A general-purpose **database management system (DBMS)** is a software system designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include [MySQL](http://en.wikipedia.org/wiki/MySQL), [PostgreSQL](http://en.wikipedia.org/wiki/PostgreSQL), [SQLite](http://en.wikipedia.org/wiki/SQLite), [Microsoft SQL Server](http://en.wikipedia.org/wiki/Microsoft_SQL_Server), [Microsoft Access](http://en.wikipedia.org/wiki/Microsoft_Access), [Oracle](http://en.wikipedia.org/wiki/Oracle_Database), [SAP](http://en.wikipedia.org/wiki/SAP_AG), [dBASE](http://en.wikipedia.org/wiki/DBASE), [FoxPro](http://en.wikipedia.org/wiki/FoxPro), and [IBM DB2](http://en.wikipedia.org/wiki/IBM_DB2). A database is not generally [portable](http://en.wikipedia.org/wiki/Software_portability) across different DBMS, but different DBMSs can inter-operate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one database.

## 1.1Result processing System:

## 1.2 Student information management system:

A student information system (SIS) is a [software application](http://en.wikipedia.org/wiki/Software_application) for education establishments to manage student data. Also known as student information management system (SIMS), student records system (SRS), student management system (SMS), campus management system (CMS) or school management system (SMS).

These systems vary in size, scope and capability, from packages that are implemented in relatively small organizations to cover student records alone, to enterprise-wide solutions that aim to cover most aspects of running large multi-campus organizations with significant local responsibility. Many systems can be scaled to different levels of functionality by purchasing add-on "modules".

# 2. Problem Definition

While surveying the existing database maintenance trend in the different organizations of Nepal, we found the loopholes like:

* ***Information not recorded properly:*** This occurs in research programs when the information are not recorded in accordance with the accepted standards of the particular academic field. This is a very serious matter. Should another researcher wish to replicate the research, improper recording of the original research would make any attempt to replicate the work questionable at best. Also, should an allegation of misconduct arise concerning the research, having the data improperly recorded will greatly increase the likelihood that a finding of misconduct will be substantiated.[3]
* ***Information management not supervised regularly by concerned personality:*** In this situation the concerned authority might inappropriately delegate his/her oversight responsibilities to someone (their assistant) that is insufficiently trained. Another situation might arise if the simply does not dedicate the appropriate time and effort to fulfill responsibilities related to proper data management.
* ***Information not maintained at the institution:*** This situation could occur in a collaboration in which all information is maintained by one collaborator. It would be particularly problematical if each collaborator is working under a sponsored project in which their institutions are responsible for information management. In other cases, researchers might maintain data in their homes, and this can also present problems of access.
* ***Information are not maintained properly:*** This basically means that the information is not maintained in sufficient detail, is inaccurately recorded, or not maintained in identifiable files. External auditors or reviewers would find these matters to be a serious breach of exercising appropriate responsibility regarding the proper stewardship of funds.
* ***Information are not stored properly:*** Careless storage of the information that could permit its being destroyed or made unusable is a significant matter. In such case, the institution and/or researcher have acted negligently, have not fulfilled their stewardship duties, and have violated sponsor policies as well as the terms of the sponsored agreement [4].
* ***Information are not held in accordance with retention requirements:*** As noted previously, it is absolutely essential that those involved with sponsored projects know how long different kinds of information must be retained to satisfy all compliance requirements as well as to offer appropriate support in the event of lawsuits or disputes over intellectual property.
* ***Information are not retained by the institution:*** This is a major problem that have been occur if a researcher leaves the institution and takes the original research information and does not leave a copy at the institution. In the event access is needed, it places the institution in an untenable position since it has not fulfilled its fiduciary responsibility to the sponsor.[4]

# 3. Scope and Objectives

## 3.1 Scope

An organization’s electronic data is a valuable asset and needs to remain available over time. In today’s fast-paced world, data archives are no longer a luxury. Effective, reliable and affordable archiving technology is quickly becoming a necessity for many content-intensive applications.[6] Data archives help professional organizations achieve three main goals:

•Record, protect and retain data for the future

•Meet the world’s increasing data recording needs.

• Live up to the world’s compliance and legislation requirements

## 3.2 Project Objectives:

### 3.2.1 Primary Objective:

* Creating profile of each students
* Providing an user friendly interface
* Suitable for colleges/schools
* Dynamic student subject relationship
* Dynamic exam with configurable full marks and pass marks for each subject for each exam
* System that can hold the exam record of student for as long as he/she remains in the institution
* Handling records of examinations, assessments, marks, grades and academic progression
* Creating new record for newly Enrolled students.
* Maintaining records of absences and attendance
* Maintaining discipline records
* Providing statistical reports

### 3.2.2 Secondary Objective:

* Handling the admissions process
* Communicating student details to parents through a parent portal
* Student health records
* Accounting and budgeting services
* Recording communications with students

# 4. Research Methodology:

Initially, we researched about the system feature, its broader scope, implementation advantages, and difficulties via internet. This helps us to be more familiar with the MIS system. We also researched about the existing archiving trends and technology and also referred to many research papers by different authors.

We were also involved in a small research to be familiar with the current MIS system trend in different government and non-government organizations by visiting the organization and consulting persons actively involved in handling the information database and who have to use these data for their day to day operations. We were nicely supported by the different personnel linked in the organizations which we visited. They provided us with the briefer introduction about their system, also the benefits of the managed system. And also the problems they are facing due to the unmanaged and sustainable database. Due to this research we derived a conclusion that maintaining a proper system for the data and record management, popular abroad is can also be a good practice in Nepal and we also get positive responsive towards our concept.

# 5. Expected Outcome:

There is no question that we live in the age of information. The focus of the world economy has shifted from physical production to the importance of data: statistics, facts, figures, numbers and records. As this shift continues, the importance of information in a business escalates.[5] Nearly all of a professional organization’s data exists in an electronic format, and as the value and volume of data increases, so does the demand for adequate storage, maintenance and retrieval of  the data. There is no question that we live in the age of information. The focus of the world economy has shifted from physical production to the importance of data: statistics, facts, figures, numbers and records. As this shift continues, the importance of information in a business escalates.

Any organizations have large amounts of data, and a large percent of it needs to be retained. Only 25% of the data within an organization is freshly created; the rest is redundant data, or data that was created in the past and must be preserved for future reuse .This situation has created a high demand for information storage and proper maintenance, a demand that carries both monetary and logistic concerns. DBMS allows organizations to efficiently retain this mass of redundant data, often for very long periods of time, so that it can be easily accessed when necessary.

Thus by managing a managed database for any organization, we are here trying to provide a platform for better recording and accessing of data. The main advantage of DBMS is that data with historical values can be placed in a single platform .Also providing an easier access to them through a simple search engine platform. The user wanting to retrieve the information won’t have to fire queries for database retrieval, a simple keyword search feature will be embedded in the system for data searching.

Thus one can have a better feature of easier data/Information access without much wastage of time and effort. And also any novice person about the DBMS can access the data due to the simpler user interface provided by the DBMS module.

# 6. Gantt chart and time scheduling:

# 7.Conclusion

One of the most powerful aspects of a DBMS is the ability to organize and retrieve data from different, but related, files. However, using the databases and DBMSs has its advantages and disadvantages. We are well familiar of the tradeoffs that is accompanied in DBMS using the computerized tools. The tradeoffs we have discussed so far include such things as the redundancy, accuracy, accessibility, and user-friendliness of data in a DBMS.

Electronic data permeates and dominates business industries across the globe. As our world economy continues to be more information-based, mass amounts of electronic data continue to accrue at a rapid pace. As a result, the world’s need for managing them is ever-growing, placing more and more demand on professional organizations .And to ensure reliability, DBMS technology is in place to save, protect and manage the electronic data.

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