



# Computerized Record Management System of one National High School in the Philippines

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**Abstract** – *Computerized Record Management System as designed to provide efficient and accurate recording of records, to maintain and secure the student's records and easy retrieval of student records, to lessen the workload of the staffs. In this study, entitled: "Computerized Record Management System " was developed. To handles the storage, maintenance and retrieval of information of students. The processes involved in the current student Record Management of Quetegan National High School include the following: Registration process, Sectioning and Grade Generation. The problems encountered in the current Record Management include the following: Unorganized and difficulty in searching and Updating Records and Unsecured Files. The features of the proposed Computerized Record Management System are Registration, Computerized filling of Records and Automated Report Generation. The Security measures would be appropriate in the proposed Computerized Record Management System would be password security for the server and client iin accessing the system. Processes involved in the current Record Management of QNHS are still manual and paper-based system. Features that would be appropriate for the proposed Computerized Record Management System Registration, Computerized filling of Records and Automated Report Generation. Security measures appropriate in the proposed Computerized Record Management System would be restriction for access and physical security of computers.*

**Keywords** – *A maximum of -5 keywords or phrases in alphabetical order, separated by commas.*

## INTRODUCTION

Computers have come to our lives and have made their own unique stand. Today, many people from all walks of life find computer as a necessity. A computer is an electronic device that accepts processes, stores, and outputs data at high speeds according to programmed instructions, machine that performs task, such as calculations or electronic communication, under the control of a set of instructions called a program. Computers perform a wide variety of activities reliably, accurately and quickly.

Computer information Technology is concerned with the development, management, and use of computer-based information systems. It is the use of computers and software to manage data. It is responsible for storing information, processing information, transmitting information and retrieving information as necessary (Antonio & Tuffley, 2014; Sabherwal et al., 2006).

Computerized Record Management System is a good example of a computer-generated process. This can lessen the workload and provides accurate and precise information needed to the school. As a result, it will benefit not only the students but also the

administration as a whole. Computerization of school's information records and files inter-relates different yet interdependent transactions in a systematized and functional way (Ana QUIMBO, 2011; Boddy et al., 2009).

The Computerized Record Management is essential to the operation of the student's accounts and to the provision of services to users. It provides the Enrolment system; Student information such as Personal data, LRN Data, Grading, Remarks and the issuing of items and provides management information. The system design is more open offering better integration with other information systems.

We, the researchers came up with creating and developing this research study to gain experience and cultivate our mind for further enhancement of our skills and ability. We also sought to make improvements to the governance of Quetegan National High School by proposing a system for distinctions and Excellency of the school. We involved ourselves to help amend their manual processing of storing and searching records and information files for advanced refinement and faster way of administering recording management system of Quetegan National High school.

**OBJECTIVES OF THE STUDY**

The project study focuses on planning and developing an effective Computerized Record Management System for Quetegan National High School.

**MATERIALS AND METHODS**

The Rapid Application Development (RAD) approach would be used to develop the system because of time constraints in the development schedule. RAD is a linear sequential software development process model that emphasized on extremely short development cycle using a component-based construction approach. If the requirements are well understood and defined, and the project scope is constraint, the RAD process enables a development team to create a fully functional system within a very short period of time (Williams, 2010).

Data gathering is crucial in any study to provide clear understanding on the subject being investigated. The researchers used several methods during the data gathering to obtain necessary information needed in the project. The researchers also undergone online research and consulted several thesis which are related to Computerized Record Management System.

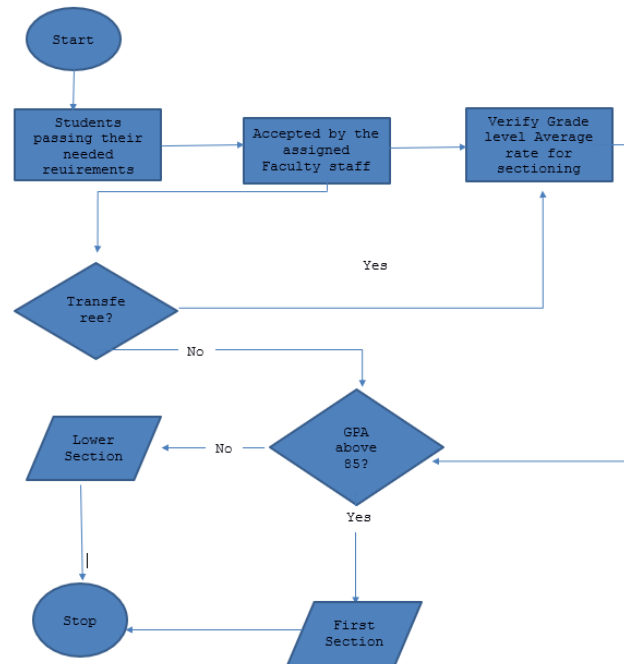
Conduct an Interview - For the purposes of this research, in depth interviews were used. In depth interviews are personal and unstructured interviews, whose aim is to identify participant’s opinions, experience and knowledge regarding this research study. The main advantage of personal interviews is that they involve personal and direct contact between interviewers and interviewees, as well as eliminate non-response rates, but interviewers need to have developed the necessary skills to successfully carry an interview. What is more, unstructured interviews offer flexibility in terms of the flow of the interview, thereby leaving room for the generation of conclusions that were not initially meant to be derived regarding a research subject. However, there is the risk that the interview may deviate from the pre-specified research aims and objectives.

**RESULTS AND DISCUSSION**

**Problems encountered in the current Record Management System of Quetegan National High school:**

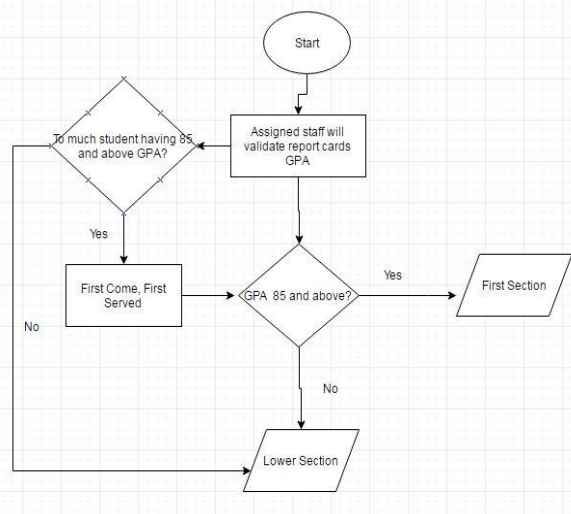
Difficulty in searching and updating records. The profiles of the students were filed in folders and

were classified by section and year, while in the records of supplies and inventory, the utility check if how many sets are ordered and specified the date when it was delivered then stored them in their storage. Meanwhile, he itemizes the list of the school’s current assets in their logbook/record book. Apparently, it’s hard for the assigned faculty to search for a specific file or record of the school if urgently needed.



*Figure 1 The Manual Process*

As a result, the processing of some transactions and documents were delayed. Also, there was no assurance that the files would be maintained or updated for the future purposes.



*Figure 2 The Manual Process*

Due to manual process, searching of students' names and updating records are tiresome job for the assigned faculty staff. It might consume a lot of time to seek and find what's being search. While in updating record, the manual method takes one long hour or two to finish it all up.

Unsecured Files. With the use of filing cabinets, all students' documents and files were not secured and were prone to thieves and unauthorized searching of documents. Also, the important records and files were at risk to be damaged by human-errors and be torn or crumpled.

### Features of the Computerized Record Management System

Registration. In this phase, the new student/transferee will present requirement to the assigned staff such as birth certificate, certificate of Good Moral Character, Form 138. After verifying those requirements, all these will be sorted for sectioning and profiling. However, if a student is continuing and a regular student, the student must present their Form 138 (Report Card) for the verification of grades and section management.

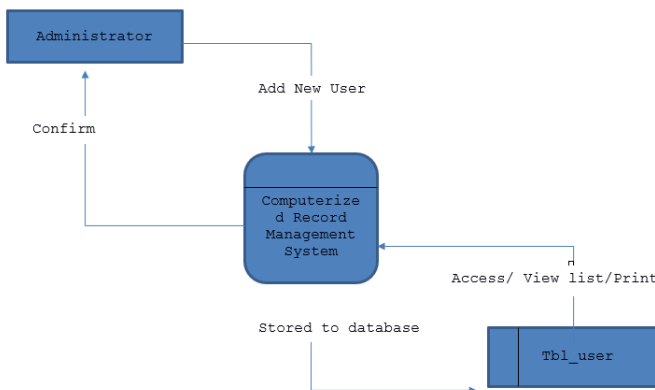


Figure 3 DFD for Registration

The proposed system covers signing up individualized user account which called the Adviser Account as permitted by the school to be one as admin for authorization to access the system. The authorized user of these user accounts are only those advisers of Quetegan National High School. Every faculty adviser must have this account to add, update and view the students' information, including their grades and student number during every grading period. Moreover, in their user accounts the advisers were obliged in

adding enrollees and transferees and add their personal information, student numbers, whereas for transferee, advisers input what school he/she last attended then registers him/her as a newly enrolled student of Quetegan National High School.

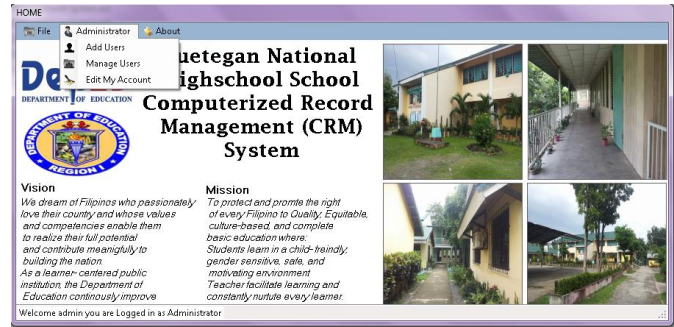


Figure 4 Software Screenshot

Whereas, the in-charge administrator, mainly concern in controlling the signing up and administering the advisers and the utility maintenance in creating their user accounts, aside from that they also have a personal account which restrictedly covers only viewing the list of employees with their respective employee number and few personal information and also can update data if needed.

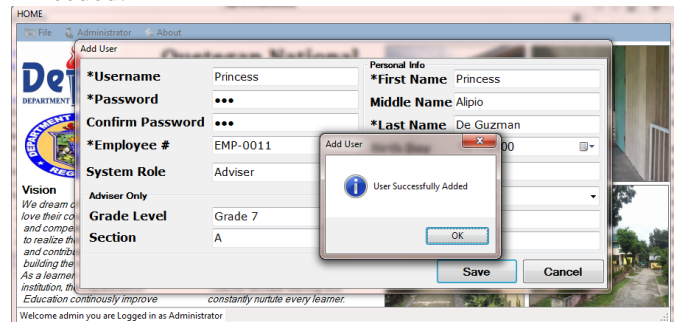


Figure 5 Software Screenshot

While for utility administrator, there is also a separate user account which is limited in keeping the records of supplies. This account, the system could view and update the ordered supplies, the inventory of the school and other concerns which have something to do with keeping record of school's materials, property and equipment.

This feature aims to automatically operate the record keeping processes conducted periodically in Quetegan National High School to make easier and to minimize time consumption in locating records. Likewise, it intends to keep and maintain them properly and to avoid the loss of any confidential files of the

school.

The screenshot shows a 'Student' management form. It includes sections for 'Personal Info' (Enrollee ID: 16-SN-0006, School Year: 2016-2017, Name, Date of Birth, Address, Contact No., Elementary School, GPA, Gender, Grade Level, Section), 'Guardian Info' (Father and Mother details), and 'Transferee' (Last School Attended, Address). A table at the bottom lists students with columns for Enrollee ID, First Name, Middle Name, and Last Name.

Enrollee ID	First Name	Middle Name	Last Name
12345678	Gen	L	Borgia
123456	Joe	S	Choi
123567	Anthony	Van	Oho

Figure 6 Managing Student

The system contains all the recorded students' information and reports of their grades prepared by their advisers, this stores the input grades of the student's per subject every grading period can easily view by the advisers but cannot be manipulate by other advisers. Only the advisers who are designated to a specific section are allowed by the system to access, as well as the students' number data including the students' personal information and other related information, also the system have the access in the record of supplies prepared by the utility administrator which were all stored in the system database.

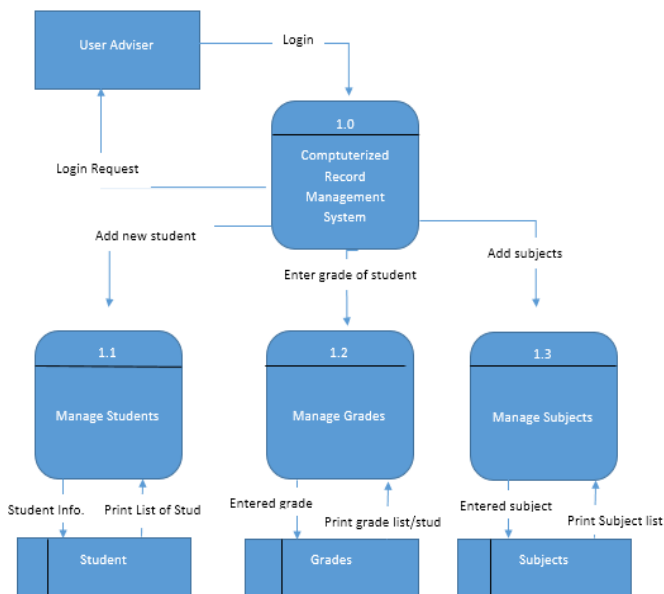


Figure 7 Data Flow Diagram

Automated Report generation. The report can automatically generated upon the request of the student as well as the past graduate students of the schools such the list of grade for every school year or grading period

– A. Moreover, the system enables to print the information list of students and their student's number and also prints the information list of employees and their employee number. It can also generate printed records of supplies or the inventory.

### Security Measures

The security features of the proposed QNHS record management system include physical security and password security.

**Physical Security.** Physically securing the computers used in the proposed QNHS Record Management System is a fundamental security feature of any system. It involves the appropriate layout and design of facilities, combine with suitable security measures and protection. Computers, especially the database server is located in the principal's office and it is not accessible to unauthorized personnel.

**Password Security.** The Computer which is only accessible by the authorized users was protected using encrypted password in order to secure data and information from unauthorized users and to prevent loss of data, discrepancy or any unlawful activity. The authorized users can also change his password to prevent unauthorized access to the system.

### CONCLUSION AND RECOMMENDATION

The user of the system must have back up of files by exporting the database into a flash disk everyday (during enrollment days) and quarterly to prevent data loss. Careful attention and proper maintenance of the system is required by watching out computer viruses that could slow down and could cause the system an awkward operation. The system must be controlled by a computer-literate faculty or in case does not have any, they might consider to employ one to facilitate the computers for database server to run and execute the system for implementation. The computer facilities must be properly assemble to a network setup with a fully network sets of PC. It is suggested that this project be reference by the students which could serve as a guide on their thesis development if their topic is related to Computerized Record Management System.

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