



ONLINE EMPLOYEES RECORDS MANAGEMENT SYSTEM FOR GUBAT NATIONAL HIGH SCHOOL

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Abstract. Record keeping and the administration of records could be crucial duties of the school director since records are indispensable part of data within the day-to-day exercises of the school system. Gubat National High School is a public school under the supervision of the Department of Education it consists of more than 200 hundred employees both teaching and non-teaching staff, Gubat National High School produces many good and bright students through the encouragement of the ever-supportive teachers in junior and senior high school. Record-keeping in this institution is very important with the number of employee documents, records tends to get lose and be misplaced.

For the foregoing reason, the developer makes his solution to solve the problem, Online Employee Record Management System for Gubat National High School that could cater to the growing needs in using the technology to make the work easy and fast, indeed, giving birth to the concept of Online Employee Record Management System for Gubat National High School which aim to record teaching and non-teaching staff personal information, SALN and the Individual Performance Commitment and Review form; centralize document storage for uploading and attaching files in different formats; registration of employee information in a centralized database; summary and transparency of all the transaction; generates reports for the daily login that makes the transaction of DTR easy and fast; monitoring for the person who enters the campus is necessary to manage the number of people. The system was also evaluated using an industry-accepted quality standard – the ISO 25010.

The common result of the assessment by 33 respondents reflected that the created system is highly applicable and exceptionally suit the requirements of the company with an overall rate of 4.36. The system is tested for its functionality suitability, reliability, compatibility, usability, security, performance efficiency, maintainability, and portability. Partitioned comes about appeared that the system passed the whole variable to which it was suitable against.

The designer is certain that together with the positive assessment of the system, the school will use the system to their advantage to make the record organized and saved into one place for

the easy and fast retrieval of the needed documents. The system to being considered as viable can be balanced to suit the longer-term needs of the school.

Key Words: Aemilianum College, DepEd Management System, Employees Records, Online System, Records Keeping, Teaching and Non-Teaching Records

INTRODUCTION

Everything in this world needs a management process that will protect information and data to ensure that all the records and the files of the schools, universities, and government are protected. Good record keeping is very essential to the overall success of the school system. Poor management and maintenance of records about the school and students can mar the success of the whole system. According to *Akinwumiju and Agabi*, information is a vital tool in the socio-economic development of any human society and information carefully gathered, stored, retrieved, and transmitted through various media has helped in the maintenance and sustenance of human society since the history of man.

A poorly managed information in the school or any institution according to *Ujah*, could ultimately result in organizational disharmony and conflict. The adoption of good information management is very essential in any school as stated that education thrives mostly on information in the same way that counseling effectiveness hinges on good, sufficient, and timely information dissemination.

Information plays a vital role in school governance as it is a primary basis for policy planning and development. According to *Rivera* record keeping is a great responsibility. This requires patience and perseverance. One has to put records in their proper place for easy access. A document has to be placed in a folder properly labeled based on the content. In most cases, folders or record books are alphabetically arranged on shelves. This manner of records keeping has been practiced for decades. It has been the manner done in a record section of an office.

How about these days, are records still kept in record books placed on shelves? Could people say that record books on shelves no longer exist?

In the study of *Mella and Peña* in the school level technology and resources for information, management remains a challenge. The existing data administration handle includes: 1) information gathering and getting of reports, 2) recording and capacity, and 3) recovery of data. Time expended within the recording and recovery of information; unorganized capacity of paper-based records; and nonattendance of school approach on data administration.

In Gubat National High School records keeping is still in the manual procedure of getting information, receiving documents, and recording all the data in the same way of saving all the information, in the same manner, stated by Pascual and Espiritu a Junior High School and Senior High School teachers of Gubat National High School recording keeping is not easy and fast to process all the documents due to manual operations. Gubat National High School has a great challenge in recording all the information of the employees in the easiest and fastest way. This essential challenge existing was observed by the researchers for the past year Online recording management System for Gubat National High School is the solution to the challenges existing in the field of recording documents.

An Online Record Management System for Gubat National High School was an online system that enabled organizations to upload and update all the information and work descriptions about the employee's identity and all the related information. It is an electronic record-keeping

and monitoring system that aided the organization not to be dependent on flat files when managing employee information. This system introduced an effective manner of record-keeping using electronic record and monitoring management. The goal of this Online Record Management System for Gubat National High School was to provide professional assistance to the institution in managing and monitoring the records and information of all the employees of Gubat National High School in an effective and cost-efficient manner.

The Online Record Management System for Gubat National High School kept track of the entire services history of the Teaching and Non-teaching staff of Gubat National High school. Included in the records are the updated training/ seminar, health issues, teaching loads, and the DTR for the coming in and going out of the employees through QR code, leave credits, service credits, and staff complete demographic profiles or the 201 files in the school were managed by the system.

Likewise, the system was designed in such a way that only the person authorized to access, changed, or alter and update the record of all the employees who had access to it. The Administrative Officer since she is the one who is responsible for keeping and monitoring all the records.

The checking process was also included to monitor and record users' activities and operations on the system to guide against the inappropriate or mischievous amendment. In addition, to achieve the objectives of serving the employers and the employees, it was in the interest of the school and the individual that the records must meet the basic modern-day criteria. Personnel records must be accurate, contain verified information and all the required information to be trusted by all parties involved.

The School operates in two departments, the Junior and Senior High School (JHS and SHS). The JHS is composed of five to seven departments while SHS is comprised of a different track, the Academic and TVL tracks. The Administrative officer is responsible for the development, management, and maintenance of the system as well as guidance of human resources and to improve management services in the school. Its role is to hold all the records of Teaching and Non-Teaching Personnel of the Gubat National High School. It ensured that the information contained in Teaching and Non-teaching files is accurate, up to date, and readily retrievable. Other responsibilities include generation of staffs list that is due for retirement, leaves and credits, staff profile or the 201 files, generation of individual records in case of resignation, retirement, withdrawal of service, transfer of service, and death.

The main purpose of this system was to enhance the old manual of records keeping and monitoring of Gubat National High School Employees. This included the Teaching and Non-Teaching staff as well as the use of manual. The system records the coming in and going out of employees in the school. It was done in an automated manner to alleviate hardships from the previous system.

The focus of this system was to provide easy access to all the records of the employees of Gubat National High School. It digitized the system which led to the improvement of the process in filling and gathering of all the information of the Teaching and Non-Teaching staff.

The Online Record Management System for Gubat National High School consists of different functions that could easily help to make the work easier and faster. The system generated a report of all the employees based on the available data input of the teacher that was entered into the system. Every employee has an account that would allow them to access the system. Thus, the system was user-friendly, considerate to the environment, and processes effective performance.

Since the system is flexible it worked both in an internal network and online via Tunneling or web application hosting. The system was hosted on a capable machine and installed in a network.

Specific Objectives

Specifically, this study aimed to:

1. design and develop an Online Record Management System for Gubat National High School using:
 - 1.1 Computer Server
 - 1.2 QR Code Scanner
2. design and develop an Online Record Management System for Gubat National High School; an online system that will keep all the records of the Gubat National High School employees with the monitoring of all the records specifically on the coming in and going out of the teachers with the following features:
 - 2.1 Admin Log-in;
 - 2.2 Co-Admin Log-in;
 - 2.3 User Log-in;
 - 2.4 DTR (Daily Time Record) Form;
 - 2.5 Demographic Profile or 201 Form;
 - 2.5.1 Updated Training and Seminar
 - 2.5.2 Updated Service Credits / Leave Credits
 - 2.6 Employee Health Record
 - 2.7 Update and Delete;
 - 2.8 Print;
 - 2.9 Teachers' load;
 - 2.10 Generate Report
3. evaluate/validate the developed system using the industry software quality model – the ISO 25010 evaluation tool in terms of:
 - 3.1 functional suitability;
 - 3.2 performance efficiency;
 - 3.3 compatibility;
 - 3.4 usability;
 - 3.5 reliability;
 - 3.6 security;
 - 3.7 maintainability; and
 - 3.8 portability

Inception

At the primary stage, data gathering was conducted to assess the existing administrative framework of Gubat National High School. This was noteworthy to precisely recognize the needs and to have a more profound knowledge around the institution and its current circumstance in record keeping. A “subjective” and “purposive sampling method” was employed in this study, this

method is a non-probability sample that is selected based on characteristics of a population and the objective of the study. (Crossman, 2020)

Moreover, the researcher should set criteria in selecting the required respondents, wherein the criteria for choosing respondents is to distinguishing key sources that specifically utilized the framework, such as the Administrative Officer, Principal, Junior High School and Senior High School Teachers and Non-Teaching staff. These Key sources were characterized by their coordinated interaction within the information administration.

Moreover, since the Administrative Officer of Gubat National High School is currently used manual data management, a descriptive survey design was applied to review and evaluate the present status of data management of the Administrative Officer. Hence, a survey study adjusted to usual preparation within the data framework was created to characterize them and give the powerless point of the current framework that has ended up the establishment of the framework advancement.

The analyst explored, watched and analyzed the current stream of the record-keeping of the authoritative office. The information-gathering amid the examination was organized and analyzed to come up with the most excellent arrangement to address the challenges of the Regulatory office. After the cautious investigation and consideration of the information accumulated amid desired evaluation overview and examination, the analyst proposed the Online Record Management System for Gubat National High School, with the assurance of conveying an appropriate framework for the respondent’s clientele as well.

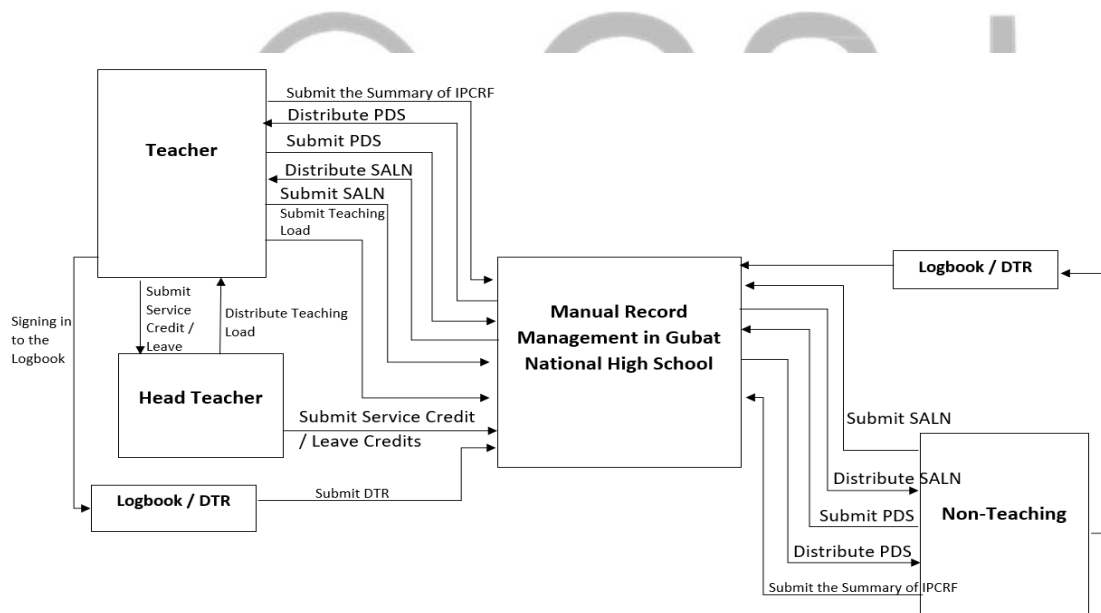


Figure 4.1 – Data Flow Diagram of the Existing System

Figure 4.1 showed the data flow diagram of the existing system. It illustrated how the current manual operation of record-keeping of Gubat National High School.

The process of the existing record-keeping started with the daily signing of the employee in the DTR logbook. At the end of the month, teacher accomplish all the cells in the DTR.

Submission to the AO was the next process to be submitted to the Division Office for payroll processing.

Elaboration

This stage involved a comprehensive examination of the exercises related to the created framework. The framework and computer program plan were arranged from the prerequisites distinguished within the Initiation stage.

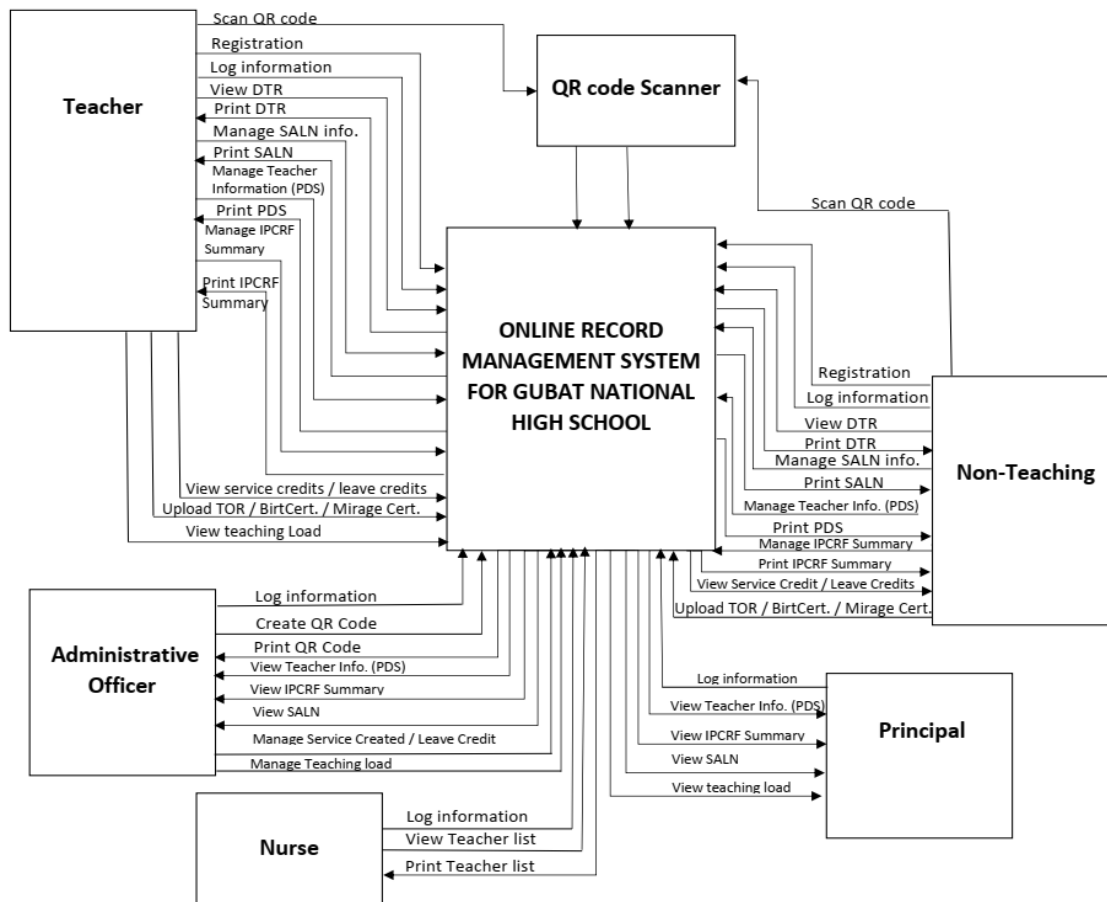


Figure 4.2 – Context Flow Diagram of the Developed System

The researcher required an arrangement taken after the examination. In this manner, the plan of the framework was sketched out wherein the models of basic strategies were built and surveyed. The framework methods were planned, and the preparatory format was created.

Figure 4.2 displayed the context flow diagram of the Developed System. There were six (6) modules has the record management system. The QR Code Scanner, Teacher, Non-Teaching Personnel, Administrative Officer, Principal and the module for the Nurse' transactions.

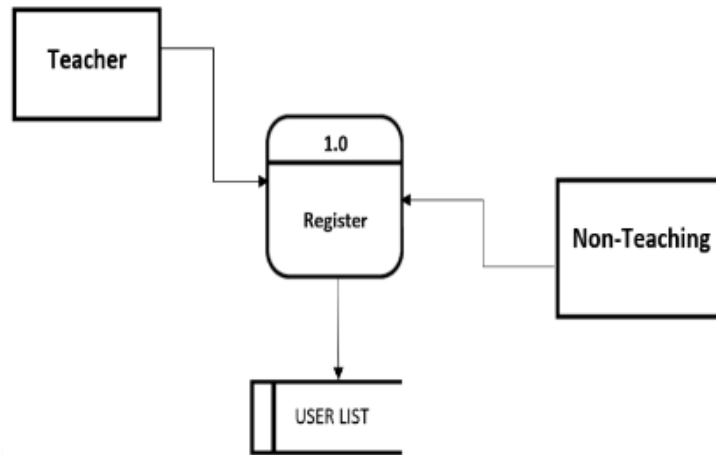


Figure 4.3 Registration Module

Figure 4.3 showed the data flow diagram of the Registration Module of the developed system.

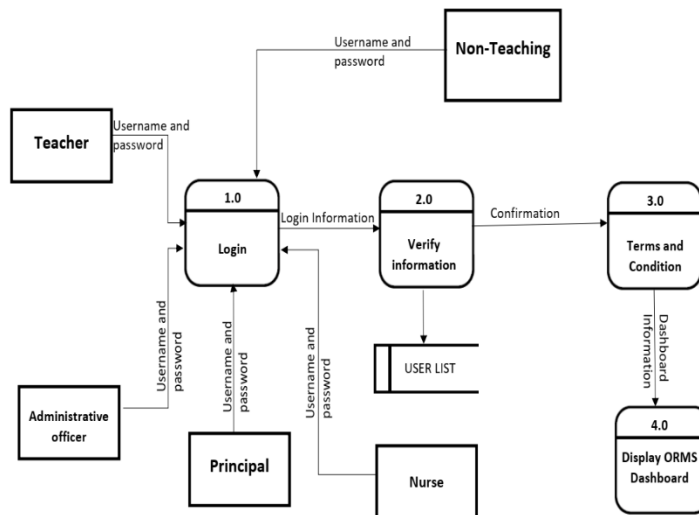


Figure 4.4 Login Verification Module

Figure 4.4 demonstrated the login verification module. It shows how it operates once done with the login procedure which will then proceed to verification of the data entry.

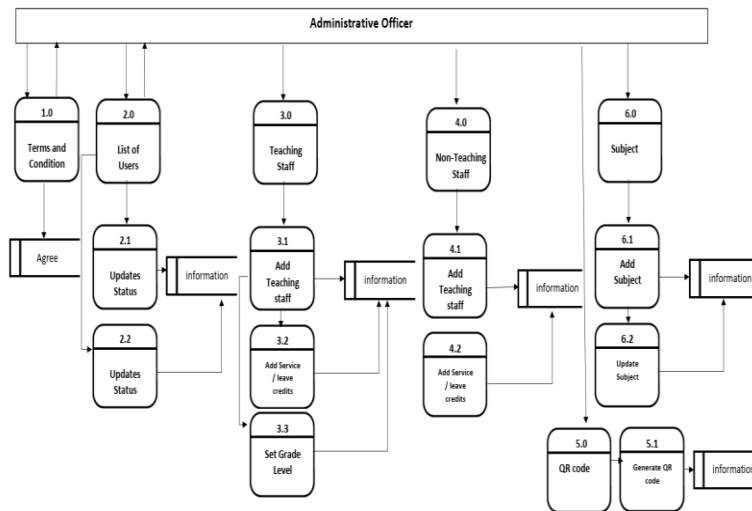


Figure 4.5 Data Flow Diagram of the Admin module

Figure 4.5 displayed the data flow diagram of the Admin module. The admin had the complete access in the entire transactions of the system.

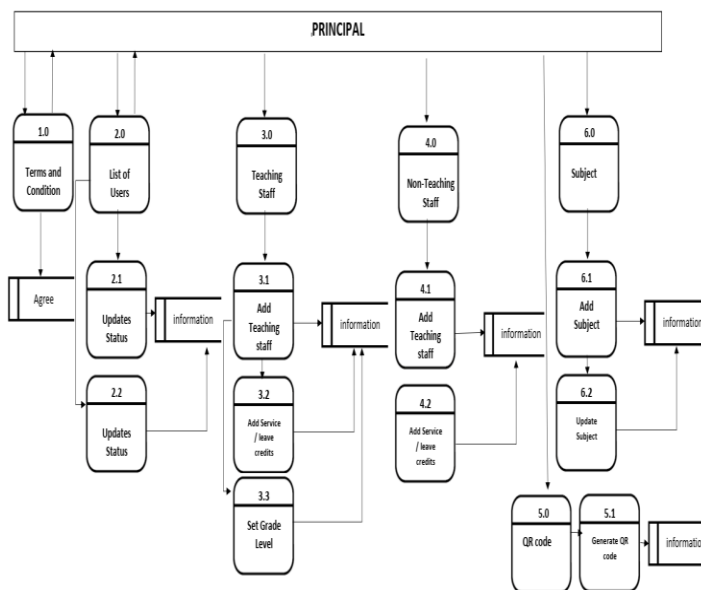


Figure 4.6 Data Flow Diagram of the Principal Module

Figure 4.6 depicted the data flow diagram in the transactions made in the Principal's module.

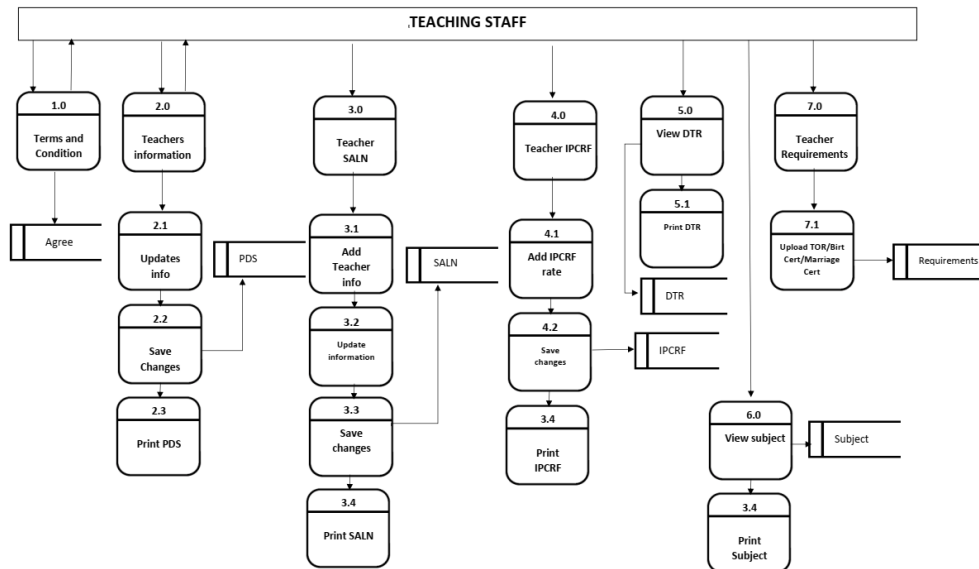


Figure 4.7 Data Flow Diagram of the Teaching Staff module

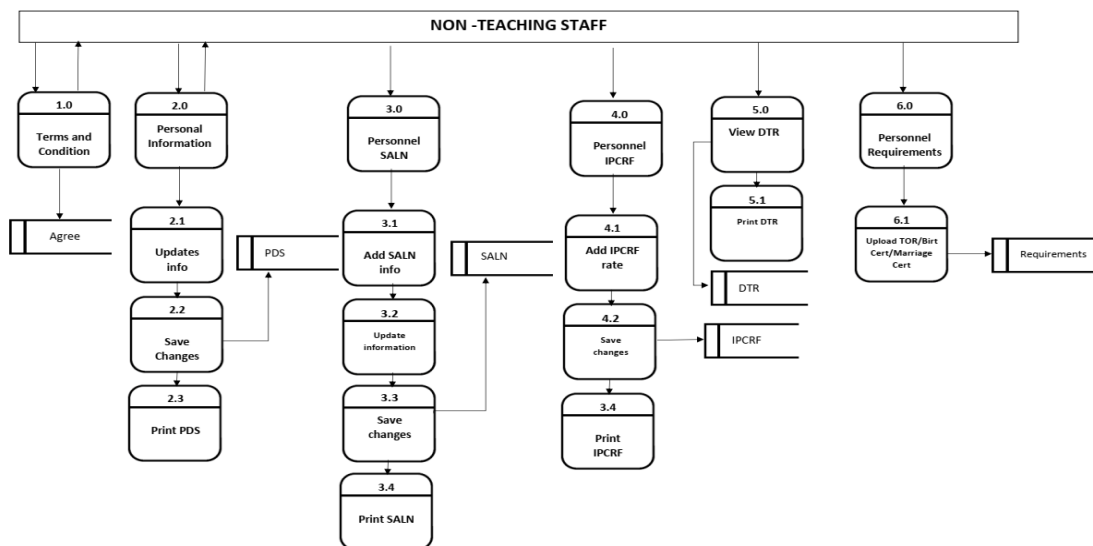


Figure 4.8 Data Flow Diagram of the Non-Teaching Staff module

Figures 4.7 and 4.8 demonstrated the data flow diagrams of the Teaching and Non-Teaching staff modules. Different transactions were shown in the diagram.

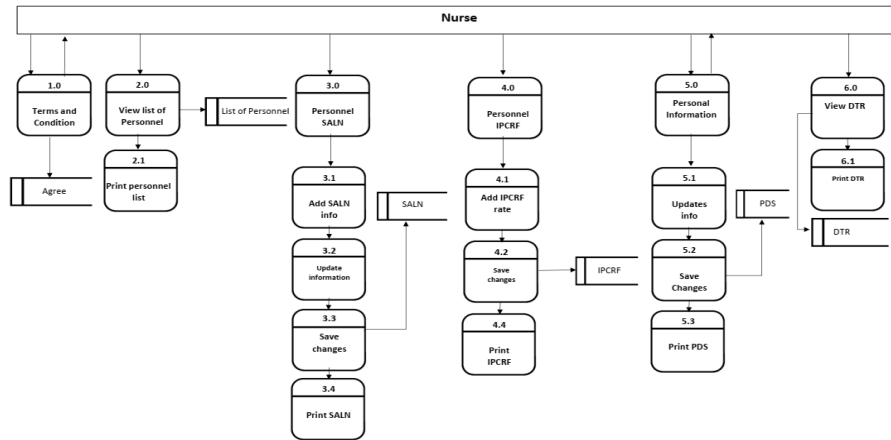


Figure 4.9 Data Flow Diagram of the Nurse module

Figure 4.9 depicted the data flow diagram for the transactions made in the Nurse’s module.

Construction

This phase is all about constructing the Online Record Management System for Gubat National High School. According to the RUP methodology, described in the methodology, *Figure 3.1*, the software system was constructed in its entirety. The emphasis was on the development of components and other features of the system.

All components and features were integrated into the product. A manufacturing process that focused on managing resources to optimize costs, schedules, and quality.

This method fitted well with the current prototyping since coordination with the end-user of the system and consultation with the administrative staff were made hand in hand to make the prototyping acceptable to the user. Any charge amid the supervision was refined afterward. Within the following advancement sometimes new functionality was executed within another emphasis.

Amid the advancement cycle, the researcher developed a client interface. Few discoveries were made amid the improvement which brought about changes which overhauled the client plan interface to make it more compelling, effective, and client inviting.

The development of the Online Record Management System for Gubat National High School with the screenshot presented on the next page.

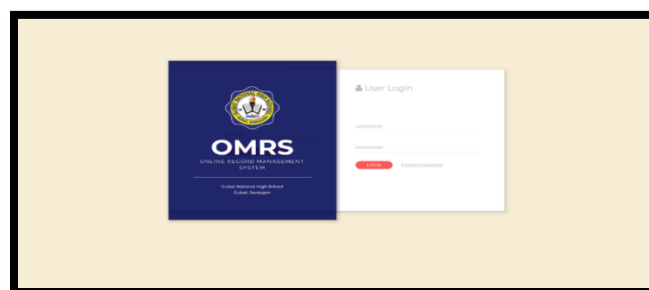


Figure 4.10 Homepage and Login page of the Development System

Figure 4.10 presented the Home page and the login page of the developed system. The logo of the Gubat National High School was presented alongside the page of the system. The username and password input module were also in the figure to make sure that the system is secured.

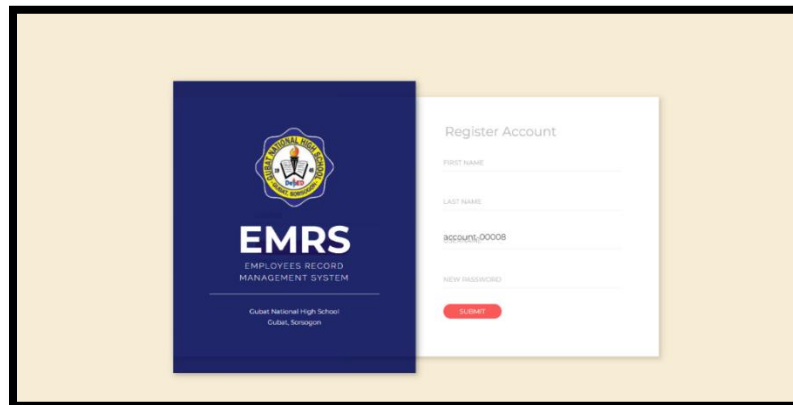


Figure 4.11 Registration page of the Development System

Figure 4.11 depicted the registration form of the user. This was one of the security features of this system. To show the strength of the system in terms of its performance, the user inputs the name, first name, and last name successfully access the system.

Table 4.15 Overall Evaluation of the Developed System

Characteristic	IT Experts	Administrators	Teaching	Non – Teaching
1. Functionality Suitability	4.60	4.52	4.54	4.77
2. Performance Efficiency	4.63	4.44	4.73	4.5
3. Compatibility	4.70	4.5	4.75	4.65
4. Usability	4.67	4.44	4.68	4.63
5. Reliability	4.63	4.41	4.65	4.70
6. Security	4.76	4.60	4.66	4.60
7. Maintainability	3.82	3.6	3.72	3.62
8. Portability	4.80	4.66	4.64	4.70
Mean	4.57	3.82	4.54	4.52
Over All Mean	4.36	Highly Applicable		

Furthermore, Table 4.15 presents the overall evaluation of the system’s quality characteristics from different respondents, thus the result of the evaluation was “more than what is

expected”, with an overall mean of 4.386. The respondents determined that the system is perceived to be “more than what is expected”.

Transition

After adjustment, change, and testing for a few times, the developed Online Record Management System for Gubat National High School was conveyed and transferred to the Cloud and to an internet Web-Based System. Strategically choosing a web browser as its stage due to its compactness, vast resources on online applications, and broad bolster on it. Furthermore, since the created framework is transferred to the cloud capacity, the analyst decided to persistently progress, adjust, check and keep up the system.

Summary of Findings

The following findings were obtained from the study:

1. The Gubat National High School is still using a manual operation in the administrative office in the submission of documents. Most of the transactions that were gathered to be recorded, were saved in the computer using Microsoft Excel, Microsoft Word, and Logbook. Therefore, based on the evaluation, the developed Online Employee Record Management System for Gubat National High School got positive feedback from the users. The newly developed system improved their perception as well as their performance on work. It also had monitoring of the daily time record using the Quick response code for easy dissemination and gathering of all the information of all the employees of Gubat National High School.
2. The new system was evaluated using ISO 25010 and was rated with an average weighted mean of 4.36. The developed system passed the evaluation conducted by the identified evaluators.

Conclusions

Based on the findings of this study the following conclusions are formulated:

1. The created framework is “Highly Applicable” as perceived by the different respondents. The created framework is serviceable to the Gubat National High School, Teaching and Non-Teaching personnel, and to the administrative office which has responsibility for keeping all the records of the school. Most of the transactions that are gathered to be recorded are spared in the computer through the use of Microsoft Excel, Microsoft Words, and in Daily Time Records can presently be recorded and spared within the unused created Online Record Management.
2. The created framework Online Employee Record Management System for Gubat National High School with an overall mean of 4.36 is “Highly Applicable” to the needs of the Administrative Officers, Teaching and Non-Teaching Staff as perceived by the thirty-three (33) respondents. Therefore, the developed Online Employee Record Management System passed the ISO 25010 – (which is concerned primarily with the definition of quality characteristics to be used in the evaluation of software products). Therefore, this Online Employee Record Management System is serviceable to the needs of the Gubat National High School.

Recommendations

Based on the conclusions, the following recommendation is hereby offered:

1. The current manual operation of record-keeping in Gubat National High School may be migrated to the developed Online Employee Record Management System.

2. The created framework in the perspective of the respondents turned out to be “Far more than what is expected” based on the overall mean of 4.36. Thus, the system is “Highly Applicable” in terms of Functional Suitability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability. Therefore, the newly developed Online Employee Record Management System may be conveyed and utilized to make strides in the administrations.
3. Extra functionalities and advancements to the framework may be examined and integrated into the modern Online Employee Record Management System to significantly make strides the benefit offered.
4. The researcher’s availability can be extended to the teachers and non-teaching staff of Gubat National High School to conduct necessary pieces of training for the users on how to use or implement the newly developed Online Employee Record Management System for Gubat National High School.

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