
Electronic Document Archival System of STO. Niño National High School

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Abstract

Despite the snags and challenges of the manual operations, some of the public high schools in the Philippines, particularly those in the provinces, still do not use computerized systems for the development of the system itself is costly. One of the operations of the schools is the manual archiving of 201 files that contain employees' personal information and profile. As the files are hard-copy documents filed in cabinets and folders, there were incidents of loss of files, duplicate data- entry, unsecured storage, difficulty of retrieval and updating records. Oftentimes, these records are needed to be reproduced and updated for promotion and accreditation. This study, Electronic Document Archiving System (EDAS) was conducted to design, implement, and transform the manual keeping of records into a computerized system for the public high school. Using the Waterfall Model of system development, the system utilized the data gathered to identify the needs and solutions in transforming and upgrading the existing manual system. The development of the system resulted in a well- organized, uniformed, and easy to search records. Specifically, the electronic archiving system developed store records (documents) into a safer and secured database that can be retrieved easily and free from any damage. However, it should also be emphasized that the most efficient way to have a good process in keeping the records is to have organized manual operations aside from a computerized archiving system to automate it.

Keywords: archiving system, waterfall, documents, database, records, manual system

1. Introduction

Undeniably, through technology and innovations, the work of human gets facilitated. It minimizes the consumed time, money, and effort of an individual as compared to manual system. As such, more and more organizations and institutions such as schools and universities are drawn to shift from traditional manual operations to automation. In the Philippines, the Department of Education (DepEd), a Philippine government agency tasked to manage and govern the Philippine system of basic education mandated that every school should require teaching and non-teaching personnel to involve themselves in the innovation of technology that would serve as a contributory part in the development of the school.

In a school, one office that deals with large workforce and bulk of data is the Human Resource Management Office. Every institution should maintain a functional and efficient

human resource management system no matter how small the organization is. Among the many duties of this office are the following: Coordinate the administration of the Recruitment and Selection processes, working in conjunction with the Human Resources Coordinator to assist in all facets of the recruitment and selection process; Facilitate new employee information and maintenance to the Payroll Unit; and Maintain human resource data bases to ensure correct recording of all staff and employment related information as required.

Just like any institution, Sto. Niño High School, a public high school in one of the northern provinces of the Philippines, has a records officer who takes custody of employees' personal records and files. As of the moment, filing of records are done in the traditional manual system. Records are hard copy documents which are filed in cabinets and folders. Keeping all these necessary and pertinent records is very important because according to Gbadegesin Mutairu Akinloye, Emmanuel O. Adu & O. A Ojo (2017) in the article Record-Keeping Management Practices and Legal Issues in the School System, the crucially, vitality and indispensability of records keeping and management in the school system cannot be overlooked because it is an essential ingredient in the smooth running of the school system. This is because the information either internally or externally generated assists the school managers in their decision-making process and equally improves school implementation of functional records and information management system keep school system on the right part because records are the major administrative tool for the success of any school system. It is also cited by Owo (2014) in the research entitled Record-Keeping Practices of Secondary School Principals: An Enugu State Education Zone Study, that apart from contributing immensely towards the proper performance of the various functions in the school system, appropriate records helps school personnel to understand the complex nature of man. Therefore, school principals and teachers must be familiar with the various types of records in the school system, the procedure for keeping each record as well as its' usefulness.

Ibara (2010) asserted that without records there can be no accountability. He further mentioned that quality performance, task accomplishment, and measurable outcomes are increasingly important responsibilities, all of which depend on the accessibility of usable records. Without access to records, it is virtually impossible to determine responsibility for actions and to hold individuals accountable for their actions.

As part of the school records, DepEd teachers are also required to maintain and update 201 files. According to Aquino (2013), the 201 file is the employee's profile in the organization's record. The 201 file is a personal file derived from the United States Army that contains personal information. So as with teachers, the 201 files have a) Commendation, b) Certificate of Achievement, c) Awards, d) CS Form 212(Personal Data Sheet),e) CS Form 33(Appointment Form), f) Position Description Form, etc., (www.wikipedia.com). In connection, Sto. Nino National High School has been one of the top leading secondary schools that offer quality education in the different strands. Historically, it was established in 1987 and opened an Annex in the year 1989, having three hired teachers to teach 89 first-year students. As a public secondary school, it is engaged with committed, qualified, competent, and skilled faculty members. Also, in the municipality, the school gained the full support of the Municipal

Officials and the whole Sto. Niño community. This school caters to the need for secondary schooling of the nearby barangays of this municipality.

Every year, the teachers are required to update and produce their 201 files as mandated by the Division's Office. And since the school is still using the manual process of keeping their pertinent records, they find difficulty in completing and updating their files since tangible files are also susceptible to damage and loss. Due to these circumstances, there would be difficulty in keeping track of the documents.

As stated by Ahmed and Jibia (2013), to improve the manual keeping of records and give solutions to these problems, there must be a transformation to the computerized system. Furthermore, the trends in the development of ICT have revolutionized the manner and volume of record-keeping which enable us to store a substantial amount of data that can be easily retrieved, shared, and copied.

To keep an organized and secured record that can be retrieved easily, specifically, the 201 files, the archiving method must be done. As stated by Nikolić, Petrović, and Krsmanović (2013), *archiving* means precise determining and storing of a document, it is keeping, and processing which enables the conditions for its quick and efficient search. The very original is archived according to certain classifying systems, while the documentation transferred on other media is archived depending on the functions of these media. The keeping conditions are the foundation of good archiving which must prevent various causes of destruction of the documents (e.g. natural disasters, theft, etc.) The archiving system should enable good and cheap reproduction of documentation that has been archived while protecting the original as much as possible and using the documentation transferred on other media.

In connection to this, Sto. Nino High School is paving its way to improvement by shifting the transaction method from traditional to Electronic Document Archiving Systems. The main role of the system is to organize the records (documents) into a safer and secured database that can be retrieve easily and free from any damage. Also, this computerized system will be a huge help in the school, most especially to teachers in keeping and securing their 201 files. Moreover, this can only be done by an authorized administrator who registers and grants a personal account of every teacher to keep records on its own electronically.

Hence, the researchers proposed the development of an Electronic Document Archiving Systems which helps teachers in storing and retrieving 201 files.

2. Material and Methodology

The diagram below (Figure 1) depicts the stages and phases of the creation of Electronic Document Archival System of Sto. Niño National High School. It entails obtaining and analyzing requirements, system design, implementation, testing, system deployment, and maintenance.

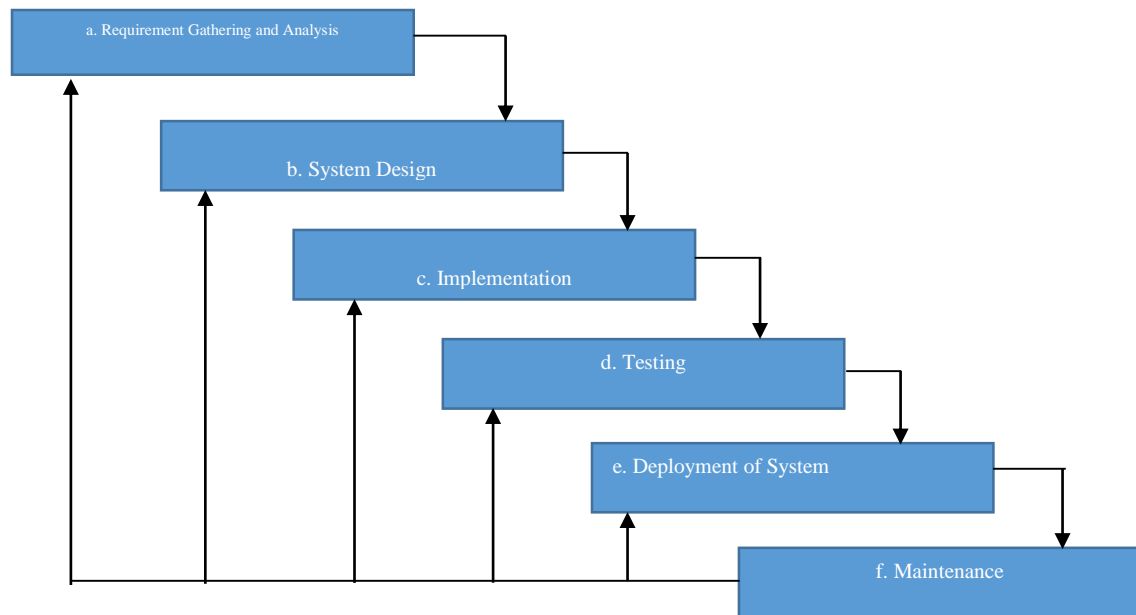


Figure 1. Waterfall Model

2.1. Technology Used

The front-end of the system was designed using Visual Basic.NET (visualbasic.net). It refers to the programming language that was utilized to create the system. As a backend, MySQL software was utilized, along with the other software and hardware requirements specified below.

2.2. System Requirements

User Requirements:

- Computer Literate
- At the very least, he who knows how to operate a computer.

Software Requirements:

- Operating system
- Microsoft Windows 10
- Documents tool
- Microsoft Visual Basic .Net 2013
- XAMPP
- MySQL
- Adobe Photoshop CSS
- Documentation and Presentation tools
- Microsoft Office

Hardware Requirements:

- Scanner
- Monitor
- Keyboard
- Mouse
- Minimum of 10GB Hard Disk Drive
- Printer

- MySQL
- Adobe Photoshop CSS
- Documentation and Presentation tools
- Microsoft Office Enterprise

2.3. Process Flowchart

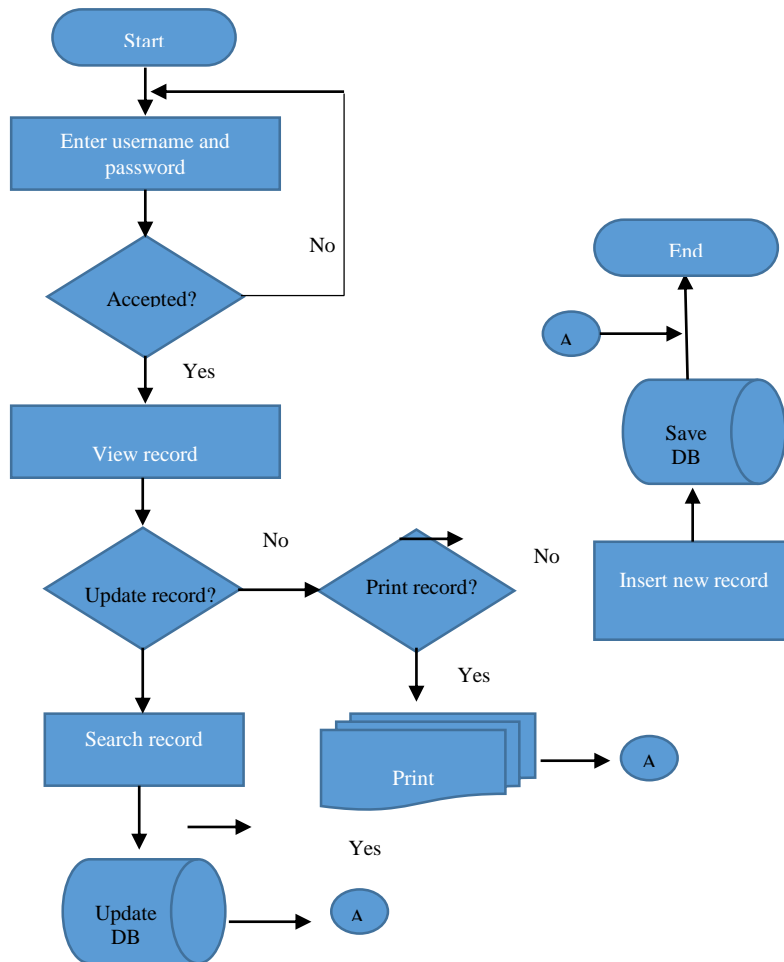


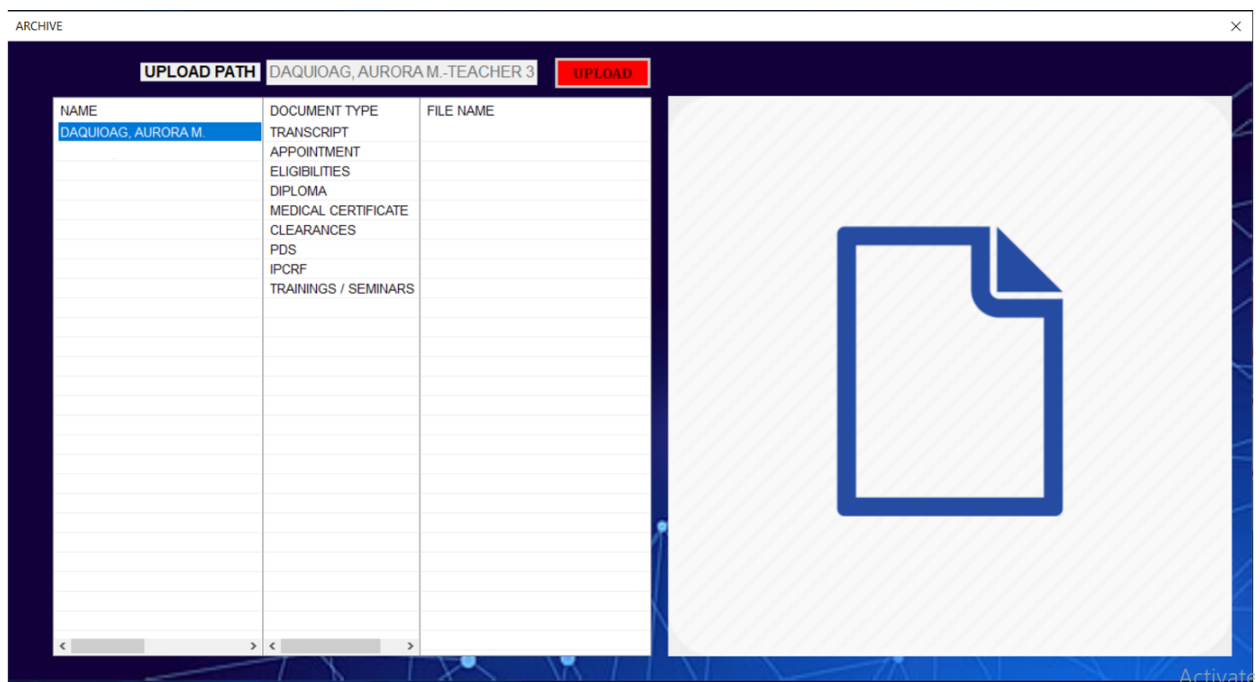
Figure 2. Operational Flowchart

3. Results and Discussion

After acquiring the relevant data and information, the system was designed, coded, or developed, and tested. Below are some examples of forms. Depending on the process, the user of the system chooses from the transactions (Figure 3).

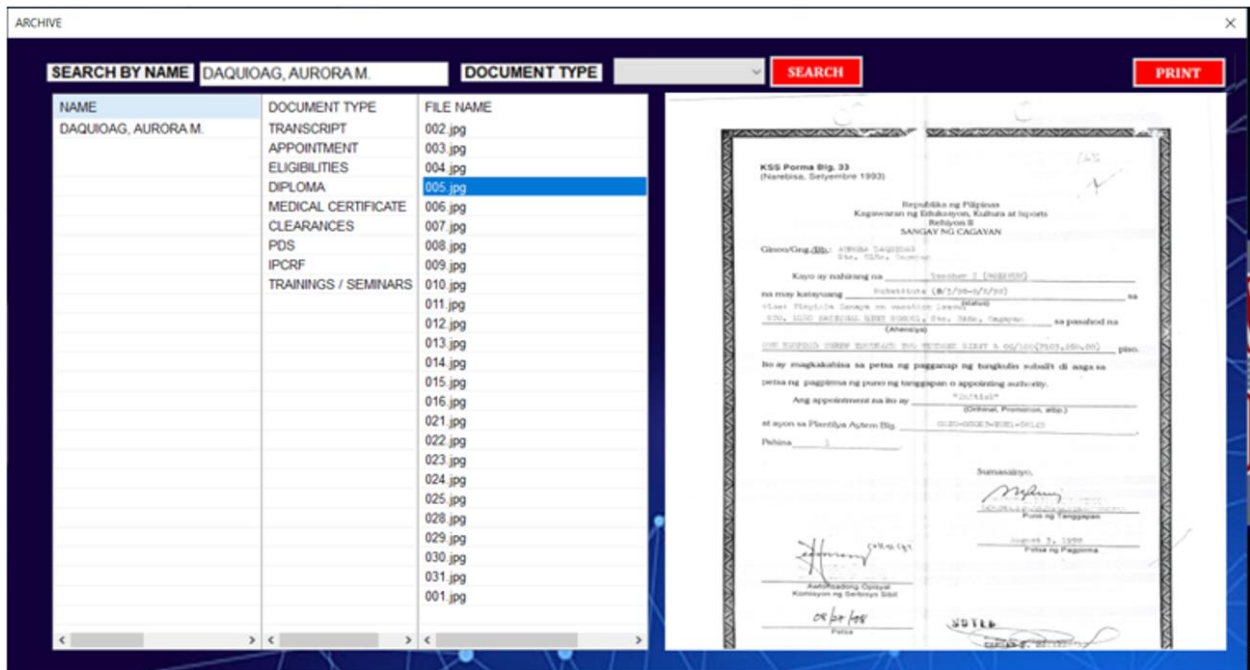


Figure 3. Main Form of the EDAS



4). The user accesses this form if he wants to search, add and update the 201 files (Figure

Figure 4. 201 records



Reports generated by the EDAS are documents from the 201 files of each teacher categorized by document type.(Figure 5)

Figure 5. Printing of 201 records

The screenshot shows a form titled 'Add Account' with a close button (X) in the top right corner. The form has five input fields: 'Name (Lastname, Firstname MI)', 'Academic Rank', 'Username', 'Password', and 'Re-enter Password'. A red 'Create' button is located at the bottom right of the form area.

Figure 6. Form for adding client account

Figure 7. Login Form

The system also has security features (Figures 7 and 8) to ensure that only authorized individuals, particularly the record officer/administrator could only access the system while the teachers have their own account whenever they needed to add and update their 201 files.

Figure 8.. Form for Changing Password

4. Conclusions and Recommendations

The study aimed to organize the 201 files of Sto. Niño National High School and develop a system for document archiving and utilize it as one of the innovative projects of the school. The system was designed using the Waterfall model with the help of the hardware and software requirements. The electronic document archival system created makes it simple to preserve and search for 201 files.

It should also be noted that the most effective method of organizing these records is to have an organized manual document archival system in addition to the computerized system for automation.

It is then suggested that the system be tested for efficiency prior to its actual use at Sto. Niño National High School, where it may be suitable.

It will be subjected to advanced studies linked to system maintenance and improvement in terms of storage capacity and addition of other vital functions once it has been adopted and proven effective.

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