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iRecord: A Records Management System for Student Services

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Abstract *- Nowadays, computerized record management systems have very useful role in everyday life. It also helps increase work efficiency in school or in other institution with the help of computer. This research aimed to design and develop an "iRecord: A Record Management System for Student Services" particularly for Pangasinan State University (PSU), Lingayen Campus with the following specific objectives: (1) To identify the problems encountered in the current system of record management of students in PSU Lingayen Campus; (2) To identify the features appropriate for the developed system; and (3) To identify the security and control measures for the developed system. Rapid Application Development (RAD) methodology was used in the development of the study which comprises 4 phases namely, (1) Requirements planning; (2) User design; (3) Rapid Construction; and (4) Cutover. It was resulted that the student services office of PSU Lingayen Campus has been using a manual or traditional filing of records and other processes involved to student services. In this manner, searching or retrieving of records yielded with difficulty and inefficiency. Also, security of the records was not assured especially when times of natural disasters happen. The developed system has the graphical representation of data showing the number of scholars by department, the most applied scholarship/s and the summary of student grantees. Reports will also be generated and can be printed by academic year or by semester for back-up purposes. To secure the data inside the computer through the system, password security was included for the authorized personnel. Thus, with the use of the system, student services office of PSU Lingayen, can easily access the data of the students regarding scholarships and other student activities and can generate reports efficiently, accurately and effectively.*

Keywords: *student services, record management, irecord*

I. INTRODUCTION

In today's generation, most people use modern technologies to be able to serve their clients faster and more efficient-making their job easier. Also, they use modern technologies to simplify life to help create a new technology for improving lives within the society and seeking new ideas. The importance of technology in the society is demonstrated by the use of it in our daily lives.

As for school industry, many schools are turning towards automated systems, whether small or big to perform their everyday tasks instead of using manual systems because automated can replace the cost and time consumed in processes that were once completed by hand while providing companies with more accurate data.

Apart from quick and easy access to information, record management has also a role to play in promoting an organization's competitive position. Record management is concerned with the generation, receipt, processing, storage, retrieval, distribution, usage, and retirement of records. It encompasses a wide variety of activities, such as the management of mail, correspondence, copies, forms and

directives. (UNESCO, 2000) Lack of attention to records management can therefore negatively and affectively affect the survival of an organization against its competitors. Organizations that lack interest in the proper record management do not know how to manage them.

The emergence of computer-based information system has changed the world a great deal both large and small system. (Jantz, 2014)

Like any other service organization, Pangasinan Provincial Treasurer's Office uses manual record management system to keep track of the income of the province. They make reports through different remittances coming from the taxes, certificates, payment, posting, and official receipts that are placed in the filing cabinets. Since they browse receipts into it and compute manually, it resulted to inconsistent reports regarding the money collected and receipts were lost easily. For this reason, Agustin et al. developed a computerized management system for the Provincial Treasurer's Office which help them avoid the stated problems. Thus, with the use of the system the office can speed up the generation of reports and other record management operation. (Agustin et al., 2013)

The developed Record Management System of Saint Dominic Parish serves and an innovative instrument in promoting the church and surely improves the efficiency of managing the records and information of community members. The developed system replaced the manual system in terms of managing records that emphasized the improvement of technology and definitely benefits the applicant and church secretary. (Aquino at al., 2013)

The Student Services Office of PSU Lingayen Campus uses manual or traditional filing or records. They just keep all the data regarding the activities and scholarships of students in filing cabinet and retrieve or access them manually. Because of this practice, many documents or files have been lost, submission of reports were not that accurate and process of transactions were inefficient.

The developed system will help the student services office in their process of records organizations and transaction such as generation and submission of reports to the University Student Services Office. The functions of the system include the systematic and efficient control of the data and effective methods of managing the records along with the transactions associated with them.

II. STATEMENT OF OBJECTIVES

The study aimed to developed design and develop an "iRecord: A Record Management System for Student Services" with the following specific objctives:

1. To identify the problems encountered in the current system of record management of students in PSU Lingayen Campus;
2. To identify the features appropriate for the developed system; and
3. To identify the security and control measures for the developed system.

III. MATERIALS AND METHODS

In this study, descriptive and developmental research design were used. Interview was conducted to gather the processes of student services office and their problems regarding the manual keeping of data and generating of reports. The data gathered were the basis of developing the system and on how it works.

To develop the system successfully, Rapid Application Development (RAD) was used which includes four phases: 1) Requirements planning; (2) User design; (3) Rapid Construction; and (4) Cutover. (*see figure 1*). Rapid application development (RAD) is an agile project management strategy popular in software development. The key benefit of this

approach is fast project turnaround, making it an attractive choice for developers working in a fast-paced environment like software development. It minimizes the planning stage and maximizing prototype development. (Lucid Team,

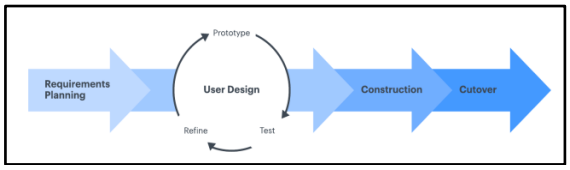

Figure 1. Rapid Application Development (RAD) Model

The following are the four phases of RAD Model:

Requirements and Planning. The researcher gathered the data needed in the development of the system. Interview was conducted for the process of transactions and record keeping of scholarships and student activities. Th flow and functions of the system were planned based on the data gathered.

User Design. After planning the functions and modules of the system, database and interface designing was done. High fidelity prototype was created. Consultation with the client was conducted regarding the design of the system. The suggestions regarding the design were fixed until the design was successfully satisfied the client/s.

Rapid Construction. After the successful design of the database and the system, development or actual coding of the system was done. The researcher used C# as programming language and Microsoft SQL for the database.

Cutover. In this phase, testing of the system with the client was conducted. All final changes are made and fixed.

IV. RESULTS AND DISCUSSION

Problems Encountered by the in the Current System of Record Management of Students in PSU Lingayen Campus

Due to manual process of transactions the following problems arose:

Time Consuming. Searching of files or records manually was a very tedious process and consumes a lot of time. Due to the manual process of it makes them inefficient and cannot give the requested documents on time.

Difficulty of retrieving and updating data. Updating the records of the students is harder with paper documents. Retrieving and editing process is more time consuming and costly.

Insufficient storage space. Student records can take up a significant amount of space, and the need of space will increase as the number of documents increases as years passed by.

Poor security. The manual process or paper document is less secured compared to electronic. Misplaced documents can easily get into wrong hands. The confidential records of students are unsafe and no chance of getting back.

Features of iRecord: A Record Management System for Student Services

Managing data. Information about the scholars can be inputted to the system and can be modified anytime if there are some changes.

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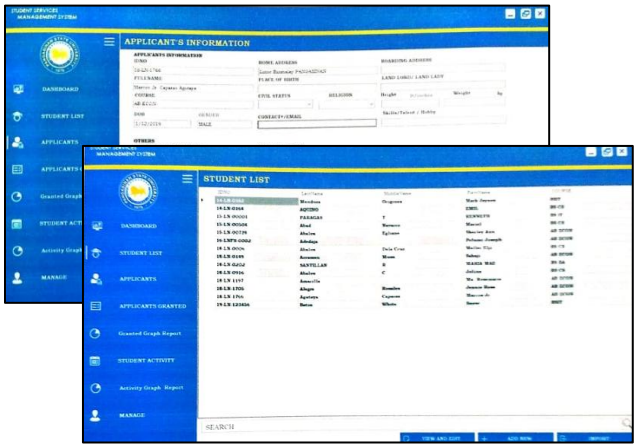

Figure 2. Managing of students' data

Statistical data. The data regarding the percentage of scholars per department, the percentage of most applied scholars and the total student grantees can be viewed through a graphical representation in the dashboard. Through this, the statistical reports of the data especially when it is needed at the very moment could be easily determined.

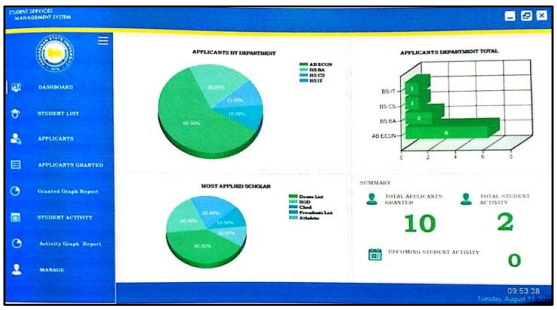

Figure 3. Statistical Data

Generating reports. The data could be accessed and printed when it is needed.

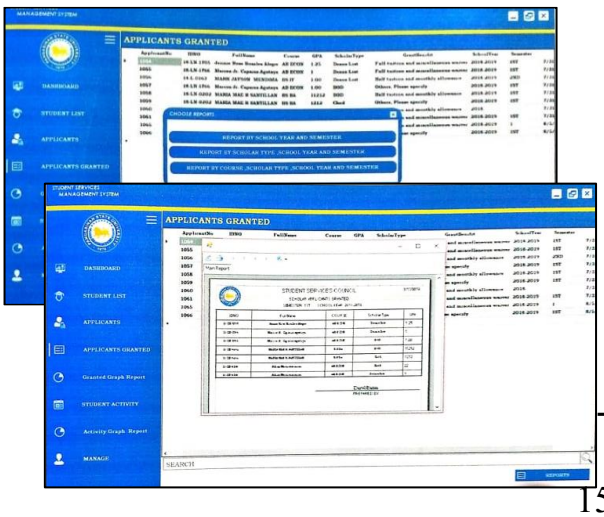

Figure 4. Generating reports

Security and Control measures of the Developed System

The security and control measures of the system include the physical and password security.

Physical Security. Data shall be secured in whatever manner. Physical security includes limitation and control of the people to access the office and facilities especially to where the computer is. Surveillance or CCTV camera may also be installed for both prevention and incident recovery.

Password Security. The system will only be accessed by the authorized personnel of the Campus Student Services Office. The data within the system were protected and secured by the username and encrypted password to prevent the unauthorized access of the unknown users. This avoids the loss of data, discrepancy or any unlawful activity. The authorized user can manage his account such as changing password for the data security.

V. CONCLUSIONS AND RECOMMENDATIONS

Using manual process of managing and recording data, efficiency and reliability are quite difficult to achieve. Thus, utilizing the system for the transactions of student services office of PSU Lingayen Campus will overcome the problems. Through this system, it could manage data easily in an effective and efficient manner.

On the other hand, proper implementation of the system will be considered. Installation of CCTV camera is highly recommended for the additional security of the facilities and the data. In addition, archiving of data integrated in

system is also recommended for the future researchers or developers as an improvement of the system.

VI. REFERENCES

UNESCO, 2000. Archives and Record Management for Decision Makers. Retrieved from http://www.nzdl.org/cgi-bin/library?e=d-00000-00---off-0cdl--00-0----0-10-0---0---0direct-10---4-------0-1l--11-en-50---20-help---00-0-1-00-0--4----0-0-11-10-0utfZz-8-10&cl=CL2.1&d=HASH5db4d55fb925178d142ce3.6&gt

Jantz (2014) "management information systems" information management vs. decision making. Retrieve from https://nairaproject.com/projects/221.html

Agustin et al. (2013). Computerized Management System of Pangasinan Provincial Treasurer's Office. Unpublish manuscript.

Aquino at al. (2013). Record Management System of Saint Dominic Parish. Unpublished manuscript.

Lucid Team (2018). 4 Phases of Rapid Application Development Methodology. Retrieved from https:// www.lucidchart.com/blog/rapid-application -development-methodology