ONLINE RECORD MANAGEMENT SYSTEM FOR COLLEGE OF COMPUTING STUDIES, ILOCOS SUR POLYTECHNIC STATE COLLEGE STA. MARIA CAMPUS

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Chapter 1

INTRODUCTION

Background of the Study

In this day of rapidly advancing technology and abundant information, it was manifested that one of the essential pieces in the regular function of an organization both private and public was the record that it generates and receives daily since it supports business activity associated with the workflow and provides a basis for efficient service delivery. The landscape of record management has changed with the increasing demand of information and communication technologies (ICTs) into the daily operations of the organizations and resulted in a new version of records which was digitally born records along with the paper origin records

Based on the study of Pagayonan (2021), The main goal of this study was to develop an improved computerized leave management system for the staff of Northern Iloilo Polytechnic State College Estancia, Iloilo, as well as a new method for storing and retrieving documents in digital form from the Records Office. This article specifically aimed to design, build, and assess the usability and performance of the Record Management System with Document Control as experienced by the target users. One of the organizational divisions at Northern Iloilo Polytechnic State College (NIPSC) was the Record Office. It performed the formal role. Repository for all information that is crucial to the College. One of its goals was to offer clients prompt front-line services. It supports the NIPSC's mission to maintain its dedication to provide its campuses with the best possible teaching and learning opportunities. The office currently processes all incoming and outgoing correspondence from the institution, staff leave requests, and updates to their (201) personal files using a manual system.

The quantity of information that can be stored in current technology has been growing at a rate that is exponential during the course of the modern era. Based on the study of Mukred, Yusof and Hawash (2021), They mentioned that access to large volumes of information has transformed the way in which governments, institutions, businesses, and people go about their business and retain records.

According to Danlog (2017), The management of the student accounts and the supply of services to users are both made much more difficult without the Computerized Record Management system. It offers the Enrollment system, as well as information on students (including personal data, LRN data, grading, and remarks), as well as information regarding management. Additionally, it issues things and gives management information. The architecture of the system has been made more open, which offers improved interaction with other information systems. In order to gather experience and grow one's mind in preparation for future development of one's talents and capabilities, the proponents of this research study came up with the idea to create and develop it.

The production of electronic records has undergone significant change as a result of the rising use of information and communication technologies (ICT), office automation, and digitalization in combination with cloud computing. The emergence of this new environment presents opportunities for organizations, and those organizations should use those opportunities to assure competent operations and regulatory compliance far into the future. Implementing the Electronic Records Management System is made more difficult by the lack of a framework (ERMS). Therefore, the purpose of this research was to offer a framework for ERMS implementation and to identify the most

significant aspects that are connected to the features of both ERMS and cloud environments.

According to Donald and Ritchie (2021), an important component of the administration of every business is a streamlined and efficient records management program. According to the results of the surveys, Northwest Samar State University was not entirely knowledgeable on how to go about implementing this statute, which is the National Archives of the Philippines Act of 2007. (R.A 9470). For the time being, the university continued to depend on the university code for the requirements pertaining to records management. The goal of developed system was to evaluate the University Electronic Records Management System (UeRMS) for Northwest Samar State University's acceptability as perceived by computer experts, school administrators, teaching personnel, and non-teaching people.

The elements of Records Management serve to increase the efficiency of old procedures and facilitate the implementation of new procedures. Users are given the ability to generate sufficient proof recordings for the implementation of a new and enhanced method. In conjunction with Document Management, the module may be used to govern the generation of records as well as their access, versioning, and storage. End-users are able to do a rapid search for any kind of record using the capabilities of the search engine that are built right in. The software's improved authentication and authorization features restrict access to just those users who are permitted to use them. Notifications will be sent in the event that an activity is carried out on a record, and activity logs will also be kept. When it comes time for audits, these activity records might serve as trails to follow. The adoption of a record management system is one step toward creating a paperless workplace, which will encourage more environmentally

responsible actions. It eradicate the need for the physical maintenance of paper documents as well as the numerous time delays associated with locating records that are needed. Furthermore, it provides management with increased control over the documents that are utilized inside an organization.

Owners and workers of businesses may now access their data and records quickly and simply from almost any location on the earth, right at the tip of their fingertips. Along with an increase in people's mobility has come a rise in the need to access documents virtually. Because they are able to get their hands on any significant file whenever and wherever they choose, business owners and executives in today's world no longer need to be concerned while they are away from the office. The elimination of the need for file cabinets, the mounds of paper that cluttered the workstation, and the many hours spent manually scanning and shredding material using cumbersome equipment were all brought about by this change. The employees are able to regain their office space and experience increased productivity thanks to the use of a digital document solution. Electronic document management software increases compliance and reduces the likelihood of misplaced files, data breaches, fines, and lost revenue. Rather than leaving confidential business information vulnerable to a security breach by storing records in unlocked file cabinets or in a communal meeting space, this practice should be avoided in favor of using electronic document management software. You will also have the extra benefit of thorough audit trails and permission-based viewing available to you as a result of this.
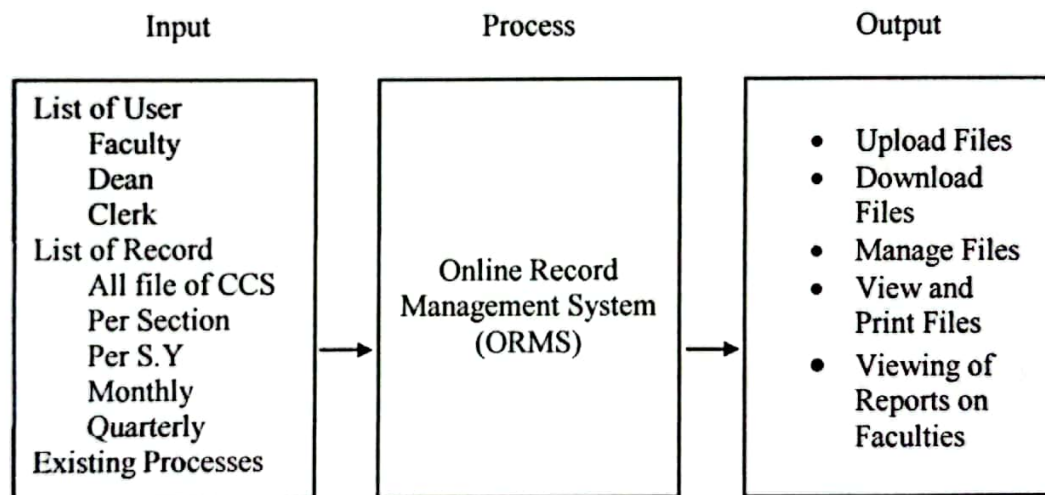
In the department of College of Computing Studies, the way of keeping their files was only stored in their own cabinets. Especially in the Dean's Office, the files are also stored there. The files that faculty members submitted it will be stored or kept on the

cabinet of their office and the files are just put in a folder so there's a chance of losing or misplaced it. If one of the files are lost the creator or the one who submitted will resubmit that particular file.

Conceptual Framework of the Study

Figure 1 illustrate the conceptual framework of the study. It served as the outline on how the researchers conducted the study.

Input	Process	Output
List of User Faculty Dean Clerk List of Record All file of CCS Per Section Per S.Y Monthly Quarterly Existing Processes	Online Record Management System (ORMS)	• Upload Files • Download Files • Manage Files • View and Print Files • Viewing of Reports on Faculties

Figure 1. The Conceptual Framework of the study

In the conceptual framework, the study was guided by the use of the input-process-output. The input part included the List of User such as Faculty Members, Dean, and Clerk. Then the List of Record such as All file of CCS, Per Section of CCS, Per S.Y Files, Monthly, and Quarterly Report. And lastly, the Existing Processes. The Online Record Management System for CCS, ISPSC- Sta. Maria Campus was developed to ease the process of Record Management. The output of the system can upload files, download files, manage files, view and print files, and viewing of reports on faculties.

Objectives of the Study

Specifically, this study aimed to achieve the following:

1. To determine the existing Record Management System of the College of

Computing studies along its:

    a. Storage and Retrieval

    b. Security

    c. Maintenance

2. To determine the functional and non-functional requirements of the proposed Record Management System.

3. To assess the level of acceptability of the developed system.

Scope and Limitations of the Study

The scope of the study is about the Online Record Management System for the Ilocos Sur Polytechnic State College Sta. Maria Campus, College of Computing Studies. The user can upload and download records like Syllabus, Module, Table of Specification (TOS) and Exams, Report of Grades, Class Records, Individual Performance Commitment Review (IPCR), and other files like Personal Data Sheet (PDS), Sworn Statement of Assets, Liabilities, Net worth (SALN), Cedula, Class Officers and can edit their profile. On the admin side, the administrator can upload and download records like Project Procurement Management Plan (PPMP), Annual Plan of Action (APA), P.R.E., Risk register, M.P., Purchase Request, Quarterly Reports and other reports. The deleted file can retrieve in the archive. Additionally, the administrator can view and print files based on the information provided by the user's uploaded and they can see when the file being uploaded and its history log. It has over 21 CCS faculty members and it has over 750 CCS student. When utilizing a system that manages records manually, it is difficult to keep track of this quantity. On the system side, the system has log in process that required to be fill up. Additionally, the system sign up, the admin will be the one will fill up their required information registration form.

Importance of the Study

The study is beneficial to the following:

The **Dean/Clerk** can easily monitor, trace and view all records for the faculties and responses based on the information provided by the faculty.

The **Faculty** can update the clerk and dean with the information and records of the CCS.

The **Proponents** enhanced their knowledge and skills in the development of the web-based applications.

The **Future Researchers** will use the results of this study in developing and implementing web-based applications considering other systems.

Chapter 2

METHODOLOGY

This chapter describes the procedure on how the system being developed. This discusses the software development, project plan, project staff and function, data gathering procedures, sources of data, and data analysis of this proponents used in this study.

Research Design

The proponents used descriptive developmental research to arrange the data presentation that collected from the occur interview and acquire suggestions and it will serve as a basis for the developed system or conducted study, the Online Record Management System for College of Computing Studies. According to Gillaco (2014), mentioned that descriptive research describes or depicts a situation or phenomenon. This particular form of description looks for the actual facts as they relate to the present scenario. In addition, the primary focus of this methodology is on the description, comparison, analysis, and interpretation of the data that is already available. The proponents of this study methodology are able to enhance the existing situation in terms of preserving and managing the records of the students who attend the College of Computing Studies Department at the ISPSC Sta. Maria Campus. This strategy is used by the proponents in order to collect information and ensure that the proposed system incorporates all of the anticipated characteristics.

Software Model

Figure 2 shows the Software Development Life Cycle (SDLC) Model. The proponents used Software Development Life Cycle in from the planning until and maintenance of this study.

According to Lemke (2018). The Software Development Life Cycle (SLDC) is a concept that software developers must have a thorough understanding of as a software development. The proponents objective was to get a conceptual understanding of the intricacies of each phase of the process and then apply that knowledge to a real-world scenario using this project. It's typically divided into six to eight steps: Planning, Requirements, Design, Build, Document, Test, Deploy, Maintain. The Software Development Life Cycle (SDLC) is comprised of discrete stages that are intended to provide software developers with a well-defined end objective for their work. These are the fundamental elements that are advised to be included in any software development project.
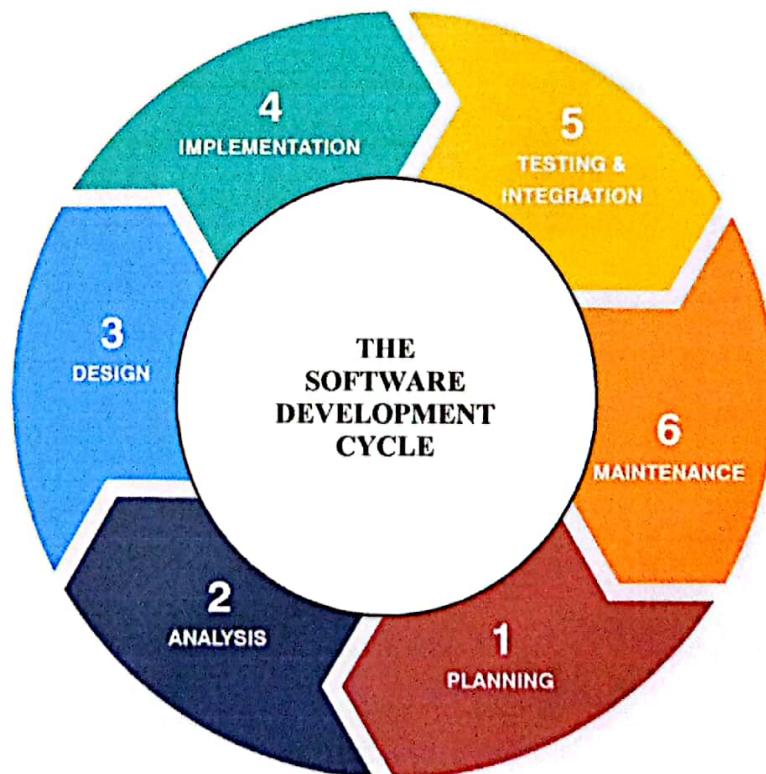
Figure 2. Software Development Cycle

The six (6) phases that were used to implement Software Development Life Cycle (SDLC) are as follows:

Planning. In the planning phase, project leader evaluate the terms of the project. In this phase, the proponents estimated the possible questions and identify if there's an existing system in that particular Department/College.

Analysis. The analysis stage includes gathering all the specific details required for a new system as well as determining the first ideas for prototypes. In this phase, the proponents conducted an interview to the project owner, after that they sum up all the data they gathered and getting ready.

Design. The design stage is a necessary precursor to the main developer stage. So from this stage, the developers designed the physical and logical phase of the system using PHP in Atom as coding application.

Implementation. In the implementation phase, it would be the start of executing the project. In implementing the system, the proponents are prepared to present it to the CCS Department.

Testing Stage. Now it must be tested to make sure that there aren't any bugs and that the end-user experience will not negatively be affected at any point. The proponents conducted series of testing to be sure of the good performance of the system by using use structure questionnaire to the faculty and the admins (Dean and Clerk).

Maintenance. In the maintenance phase, the developers must now move into maintenance mode and begin practicing any activities required to handle issues reported by end-users. The proponents would check the status of the system to see if it is functioning and if there is a bugs or problems to be fixed.

Project Plan

Figure 3 shows the timeline that was used as a project management tool to clearly illustrate the status of the process of Online Record Management System for College of Computing Studies, Ilocos Sur Polytechnic State College Sta. Maria Campus and it displays the sequence and the duration of each of the six phases of the Software Development Life Cycle (SDLC) Model.

ACTIVITIES	SEPT.				OCT.				NOV.				DEC.				JAN.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PLANNING	■	■	■																	
ANALYSIS				■	■	■														
DESIGN							■	■	■	■	■	■								
IMPLEMENTATION													■	■	■					
TESTING																■	■	■		
MAINTENANCE																			■	■

Figure 3. Project Schedule

Legend:

🟥 Planning   🟨 Analysis   🟩 Design

🟦 Implementation   🟧 Testing   🟪 Maintenance

Project Assignments

Table 1 shows the project's team members' roles and responsibilities within the proposed system, the Online Record Management System for College of Computing Studies, Ilocos Sur Polytechnic State College Sta. Maria Campus.

Roles	Name	Function
Project Manager	Martin S. Etrata	In charge of organizing with the project team Keep lines of communication open with each member.
System Analyst and Designer	Martin S. Etrata Ralph Arjay C. Echalar	Coordinates the technical team's efforts to address problems, making sure that solutions are uniform and applicable.
Programmer and Developer	Martin S. Etrata Michael Angelo C. Garrino	In charge of leading the systems planning, design, and project-building teams.
QA / Tester	Martin S. Etrata Ralph Arjay C. Echalar	Checking the project's debugging queries is your responsibility. Assess software requirements and report findings to the project team.
Documenter / Technical Writer	Martin S. Etrata Josephine J. Torres Divine Grace D. Duro Erika G. Almazan	An overall project status report. Distribute the project plan timeline and project requirement sheet.

Table 1. Project Assignments

Population and Locale of the Study

The proponents utilized purposive sampling that helped them determine the distribution of respondents, which involved the administrator that act as the clerk, the Dean and Program head, and over 20 faculty members that consist of 12 permanent and eight (8) part-time faculty members of the College of Computing Studies.

Table 2 shows the distribution of the selected respondents to participate in the acceptability of the proposed system.

Respondents	N
Program Head	2
Faculty	14
Clerk	1
TOTAL	17

Table 2. Distribution of Respondents

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Research Instruments

The proponents used interview, internet research, survey questionnaire, and survey acceptability questionnaire/WAMMI as tool in gathering data, which also it involves the participation of the Clerk and Faculty members.

WAMMI (Website Analysis and Measurement Inventory) is a Web analysis service that measures and analyzes the experience of real Web site users to help them achieve the digital goal (Muylle et al, 2004).

Data Analysis

Questionnaires and interviews were served as tools in gathering the data. Mean, Frequency Count, and the following indicators: usefulness, ease to use, and ease of learning were needed to treat the needed data to identify the usability of the proposed system Online Record Management System for College of Computing Studies, Ilocos Sur Polytechnic State College Sta. Maria Campus.

Table 3 shows the descriptive interpretation of the proposed system's level of acceptability.

Point Value	Mean Range	Descriptive Rating	Descriptive Interpretation
5	4.21-5.00	Strongly Agree	Very Highly Acceptable
4	3.41-4.20	Agree	Highly Acceptable
3	2.61-3.40	Neither Agree	Moderately Acceptable
2	1.81-2.60	Disagree	Slightly Acceptable
1	1.00-1.80	Strongly Disagree	Not Acceptable

Table 3. Descriptive Interpretation on the Level of Acceptability of Online Record Management System for CCS in ISPSC Sta. Maria Campus.

The data gathered were categorized from Not Acceptable to Very Highly Acceptable. Mean ranges from 1.00-1.80 described as Strongly Disagree and interpreted as Not Acceptable, 1.81-2.60 described as Disagree and interpreted as

Slightly Acceptable, 2.61-3.40 described as Neither Agree and interpreted as Moderately Acceptable, 3.41-4.20 described as Agree and interpreted as Highly Acceptable, and 4.21-5.00 described as Strongly Agree and interpreted as Very Highly Acceptable. Table 2 showed the descriptive interpretation on the level of acceptability of the proposed system.

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