



ILOCOS SUR POLYTECHNIC STATE COLLEGE
Sta. Maria Campus, Sta. Maria, Ilocos Sur

WEB BASED STUDENTS MEDICAL RECORD OF ISPSC
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Bachelor of Science in Information Systems



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Chapter 1

INTRODUCTION

Background of the Study

As they say, "Health is wealth," and this is also true for students. Without a healthy environment, no institution can claim to be ideal. Maintain track of health-related issues, and take action as required. Thankfully, technological advancements have made it possible for campuses to monitor and track the health data of both students and staff. Software for students' health records make it feasible to centrally monitor, report, and save medical records. A special developed piece of software called the student's health record management module enables campuses to keep track of health-related incidents, students medical records, and actions while also enabling online access to records for students and employee'. This module can be used by institutions in the event of a campus emergency. This module aids students in keeping track of medical conditions, remedies, and safety measures. This module creates a report that details what occurred, who oversaw the students, and the student's prior medical history. (New Delhi, India

-National Skill Development Corporation NSDC, March 2, 2022)

The terms medical record, health record used somewhat interchangeably to describe the systematic documentation of single patients medical history and care across time within one particular health care providers jurisdiction. A medical record includes a variety of types of "notes" entered over time by healthcare professionals, recording observations and administration of drugs and therapies, orders for the



administration of drugs and therapies, test results, x-rays, reports and many more. The maintenance of complete and accurate medical records is a requirement of health care providers and is generally enforced as a licensing or certification prerequisite. (By Grace Cordovano, PhD, BCPA, and Shahid N. Shah, M.Sc. Dec 7, 2020)

The health care industry now has more power and better tools to help them operate more efficiently thanks to technological advancement. The system is an excellent strategy that will guarantee that medical records are maintained accurately and for the appropriate purpose. Clinics deal with a lot of paperwork, every day. As the number of students increases, so do the quantity of medical records that must be managed. Students' medical histories are kept private and are an important resource for counseling upcoming students. Medical histories of students are frequently recorded on paper and stored in physical storage. This strategy is out-of-date and ineffectual. Records can be lost, are prone to error, and are difficult to locate. The clinic's quickness in responding to students. (Guru Ke Rummah, December 10, 2021).

If there is something constant in the health industry was the change. Since there are constantly new problems to solve, the technology paradigm for health care is still being developed. Medical records contain a clinical history of the patient's hospital care. As a result, the market for health products looks for ways to reduce expenses while introducing new products. Additionally, it offers a record of diagnosis, treatments, and confinements that is commonly needed by Philippine and foreign insurance companies, offices, and educational institutions.

The primary repository for data pertaining to a patient's medical care is their patient record. Almost everyone involved in giving, receiving, or paying for health care



services is impacted in some way. Despite the numerous technical developments in health care over the last.

The purpose of this study is to make the Web Based Student Medical Records of ISPSC Sta. Maria Campus more reliable by automating the process and to help doctors/staff nurses reduce their work to avoid deception, less work for the student by the clinic. Through the Web Based Student Medical Records, it will lessen their workload. The system will help Doctors or Staff nurses using automation makes the records strategy more manageable and protects student privacy.

Conceptual Framework of the Study

Figure 1 shows the conceptual framework of the study. It served as the outline on how the researchers will conduct the study.

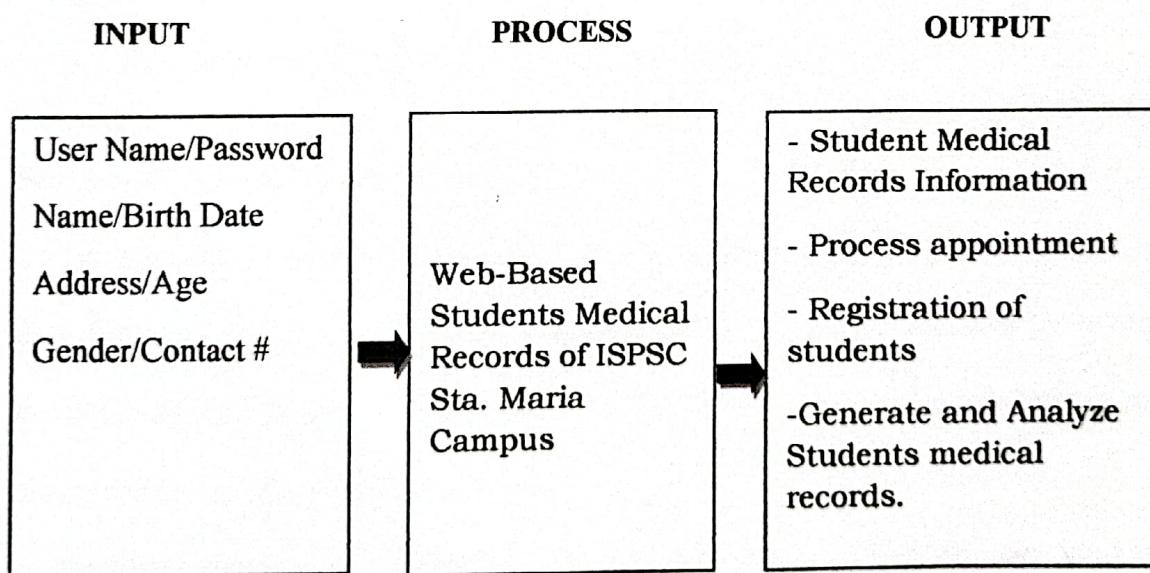


Figure 1. Conceptual Framework

In the conceptual framework, a student health record form required and must be completed and signed by a doctor. Sign-up process be provided to the users to verify



their basic information. The Admin/Doctor be responsible for managing and authenticating the user's inputs by using the given information of the student's medical records in the system's database. The system will respond and allow the students to get an appointment to saw their history medical records.

Objectives of the Project

The main objective of this study is to develop a Web Based Students Medical Record of ISPSC Santa Maria Campus that will record gather relevant information.

Specifically, this study aimed:

1. To determine the existing process of managing student medical record in ISPSC Sta. Maria Campus clinic.
2. To determine the functional and nonfunctional requirements of the proposed system.
3. To evaluate the acceptability of the developed system.

Scope and Limitations of the Study

The developed system was designed to help the doctors and staff nurses in giving easy fast assistance to their clients through computer access. The admin or the doctor or staff nurses in-charge can view, save information about the patient. The admin has also privilege to fully control the system.

For those visitors and outsiders who will be watching an event, any kind of emergencies may occur, the clinic is open to accept and help them. But the first priority will always be the students. The consultation of those who are outsiders is not recorded because the system is exclusive only for the students.



Importance of the Study

The study is beneficial to the following:

The School, can reduce administrative costs when system is used and provide the students with an easy access, accuracy of data and quicker response by immediately getting their needed medical record.

The School Physician, can make their reports easily, they won't take time to locate all the files and they can track their student health over time.

The Faculty Members, provide the instructors in the Information System Program insights as to whether or not the course contents covered in the classroom are still relevant to the employment needs of the Information System Industries.

The Students, saw their updated health status. And it's a useful method to serve the students health.

The Researchers, will enhance their knowledge and skills in the development of the web-based applications.

And Future Researchers, will benefit to this research and they can get ideas and information from the result of this study which will serve as a template to modify their research.



CHAPTER 2

METHODOLOGY

This chapter presents the research methodology which includes the research design, software model, project plan, source of data, instrumentation and data collection, and tools for data analysis.

Research Design

The researchers used a descriptive development design to organize the interpretation, presentation, and prescription of the data. With the help of this research design, the researcher had a better understanding of the clear process of medical record from the academic year 2022 to 2023. The researchers then formulated and developed the system through analysis, interpretation, and determining its flaws. This approach is used to collect data, which will then be evaluated, interpreted, and integrated into the suggested system.

Software Model

Rapid Application Development (RAD) Model was employed in the study. Agile methodology in the form of the RAD Model places a strong emphasis on frequent iterations and prototypes that are adjusted in response to user feedback. Instead of following a strict development schedule, it enables you to add updates based on usage. The goal of rapid application development (RAD) was to make the process of creating an app from conception to deployment effective, speedy, and seamless. (Egeonu, 2022).

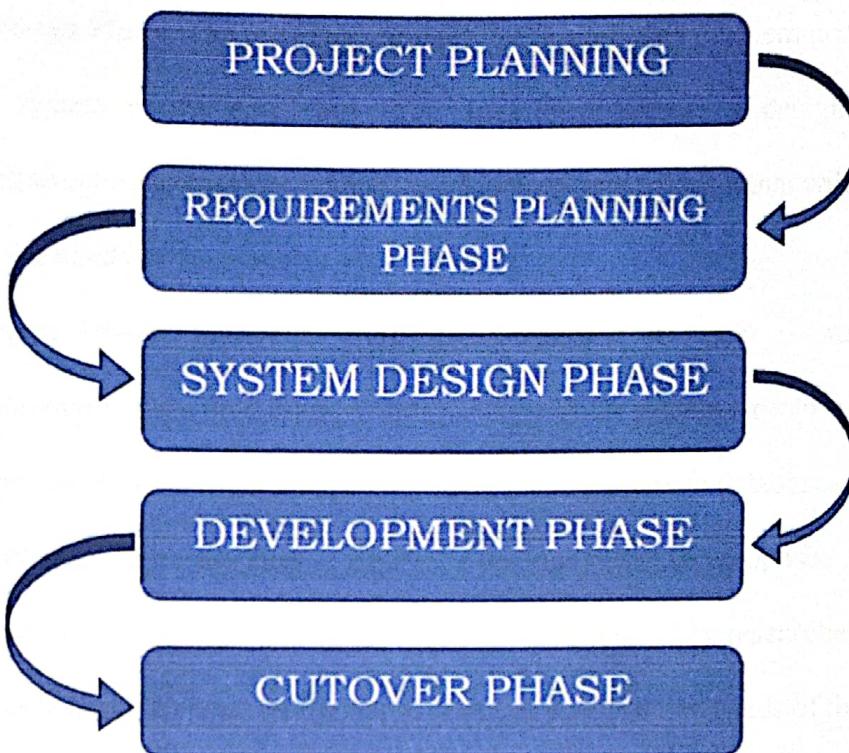


Figure 2. RAD (Rapid Application Development)

Project Planning is a subject that deals with how to accomplish a project in a specific amount of time, typically with specified stages and resources. The managing student health record is a bookkeeping system where records are maintained manually without using a computer system, according to the proponents' interviews with nurses and doctors.

Requirements Planning. In order to obtain permission to collect the data required for the study, the researchers wrote a letter that was approved by the campus administrator and the dean of the College of Computing Studies (CCS). An interview was done to acquire the information needed for the suggested system and to learn about the potential issues. Last but not least, the researchers will also gather information through internet research, historical records, and initiatives that are crucial to the system.



System Design Phase. The phase that bridges the gap between problem domain and the existing system in the other way. The researchers created a design for the recommended structure of a system features and functions and a design that will provide a solution to the needs of the system.

Development Phase. Complete when implementation is ready to start. The researchers elaborate all the documents in order to support the system structure. To start with, programmed the main functionalities of the system and create database.

Cutover Phase. The researchers conducted a dry run to test the proposed system's functionality and to identify any issues that may arise during use. The researchers tested if it runs properly based on what we expected. Whether it suits to the needs of the clinic. The system is under improvement until all the objectives is met and done

Project Plan

The Figure 3 shows the cycle of the methods and procedures that the researchers applied in this study. Phases of RAD model was adopted in the project scheduled. The term "rapid application development" refers to a software development technique that prioritizes quick prototyping over extensive planning. A working model that is functionally equivalent to a product component is called a prototype. The RAD technique involves concurrent prototype development of the functional modules, which are subsequently integrated to form the full product for faster product delivery. Adjustments are easier to incorporate during the development phase because there is less comprehensive preparation done beforehand.

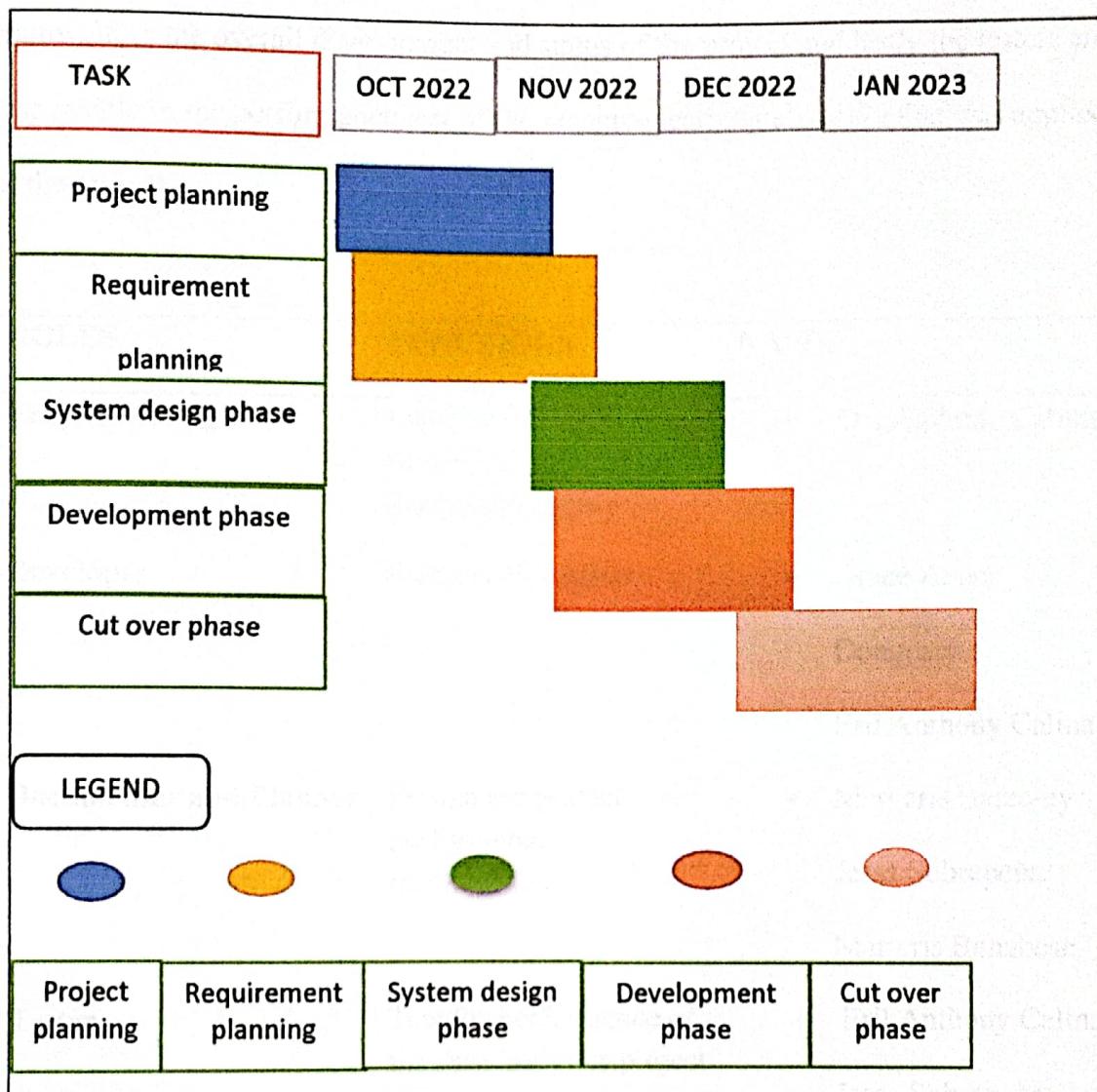


Figure 3. The Project Schedule Gantt Chart

Project Assignments

Table 1, presents the role requirements and responsibility of the members of the team. It shows that each member had their different tasks and responsibilities assigned. The project leader is the one who will provide the assignments to the members according to their skills and is responsible for the overall management of the project and build a cooperative teamwork to the group. The developer is responsible in the data Analysis while the planner and the whole members of the team to provide



teamwork in the overall development and status of the project and lastly the testers are responsible in the performance test of the machine learning algorithm that was applied in the project

ROLES	FUNCTIONS	NAME
Project Manager	Lead Team, report status review of deliverables and assure quality	• Erlil Anthony Calina
Developer	Framework content	• Grace Anne Dongpaen
		Erlil Anthony Calina
Documenter and Planner	Design the project performance management	• Marycris Batao-ey Jessa Sobrepeña Maricris Benabese
Tester	Test the performance of the data analytics project	• Erlil Anthony Calina Jessa Sobrepeña

Table 1: Project Assignment

Population and Locale of the Study

The researchers identify the respondents using purposive sampling which involve 30 students from ISPSC campus where 15 males and 15 females.



Male	15
Female	15
TOTAL	30

Table 2. Distribution of Respondents

Research Instruments

Interview, documentary analysis, internet research/library research and survey questionnaire were the tools that are used in the study, that involved the participation of the selected students who were serve as a respondent from ISPSC Sta. Maria Campus. Website Analysis and Measurement Inventory (WAMMI) was adopted to evaluate the acceptability of the developed system. as a method for measuring user satisfaction among web site visitors, comparing their expectations with what they actually experienced there (WAMMI, 2020)

Data Analysis

Questionnaires and interviews were served as tools in gathering the data in objectives (1). We used Hosting, and testing the system for adjective (2). Mean, frequency count, and the following indicators: ease to use, satisfaction, usefulness, and ease of learning were needed to treat the needed data to identify the usability of the proposed system Web-Based Student Medical Records in ISPSC Sta. Maria Campus in objectives (3).

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	Moderately Agree	Highly Acceptable
3	2.61-3.40	Undecided	Moderately Acceptable
2	1.81-2.60	Moderately Disagree	Slightly Acceptable
1	1.00-1.80	Strongly Disagree	Not Acceptable

Table 3. Descriptive Interpretation on the Level of Acceptability of Web-Based Student Medical Record 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”.